
INFORMATION PLEASE ALMANAC 1960



Planned and Supervised by
DAN GOLEMPAUL ASSOCIATES

McGraw-Hill

New York City

Library of Congress Catalog Card No. 47-845

Printed in

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WORLD EDITIONS CORP.

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Editor

DAN GOLENPAUL

Foreword

The 1960 edition, the 14th in our annual series, again deals with timely, vital material, plus an innovation that, we think, will enhance the Almanac's service for our readers.

Approximately 80,000 words in 160 pages in the front of the book are set in large type to make for easy reading. This form is not only new for INFORMATION PLEASE ALMANAC, but to the best of our knowledge has never been undertaken by any almanac heretofore. Our reading material is set apart from all our usual comprehensive reference material.

The major new reading features for this edition are:

- (1) "The Ages of Man" dealing with the many social and psychological problems from infancy to old age.
- (2) "Relearning Science" by Willy Ley.
- (3) "A Political Guide for the 1960 Presidential Election."

The political guide, a formidable project to undertake under normal circumstances, was made more difficult because of the late adjournment of Congress and the government officials' involvement with the Khrushchev visit, the steel strike, and so forth.

Notwithstanding the burden of various pressures, many individuals in the government responded to our invitation for contributions. We are particularly grateful to Senators Mike Mansfield of Montana, Everett M. Dirksen of Illinois, George Aiken of Vermont, and Joseph Clark of Pennsylvania, and Mr. William McChesney Martin, Jr., Chairman, Board of Governors, Federal Reserve System.

I think the reader will agree we are successful in maintaining the proper neutral balance. As the Editor, I may have taken liberties in posing questions in my Introduction which I thought would stimulate thinking and discussion because so much political discussion is cut and dried.

We would be very happy to receive comments from our readers on these questions, as well as comments on the other material in the Almanac.

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INFORMATION PLEASE TEST ON RESEARCHING AND REVIEWING

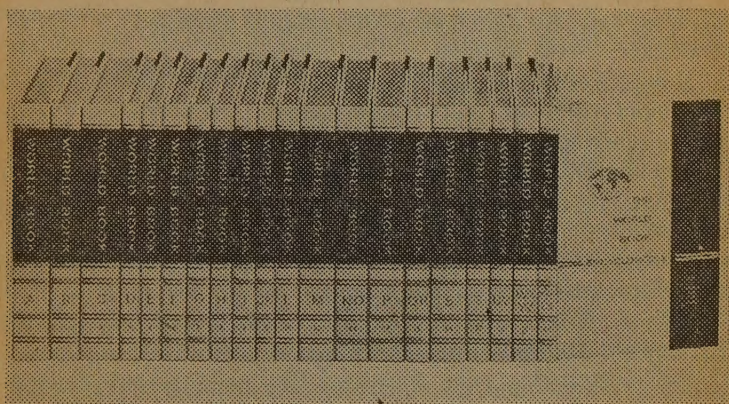
Listed here are ten questions based on material contained in this edition. Answers to the questions may be found by simply checking our Index beginning on page 883. Just for fun, why not try them first and see how you do?

The Index will furnish page numbers that contain the answers to each question. The entire family may work together to find the answers. This procedure will be fun and informative.

The answers are relatively easy to find. We deliberately planned it that way because your score for answering the questions is only part of your opportunity to win a prize. To win a prize, you are also required to write a review, in 200 words or less, of your evaluation of the INFORMATION PLEASE ALMANAC.

Your review should be based on the contents of the Almanac. You may discuss the various features on a specific or general basis. Tell us what sections you like and why. Tell us whether the sections you prefer are important for study purposes, and whether you find the information interesting for general knowledge and reading. You may be critical of any features, and you may suggest features that you think we should include in our Almanac.

Twenty-five letters will be selected as the best, and the writers of the twenty-five letters will receive a prize of the new 1960 edition of the famous WORLD BOOK ENCYCLOPEDIA consisting of twenty volumes, 11,600 pages, 21,000 pictures, 1,775 completely new maps, and priced at \$179.00.



Our staff will consider your review on the basis of its merit for review and for its literary quality. We promise that all letters will be read. Our editorial staff will select one hundred of the best letters and these letters will be turned over to our committee of judges who will select twenty-five letters for awards.

Our committee of judges is Cornelia Otis Skinner, author of *THE APE IN ME*, John Kieran, author of *A NATURAL HISTORY OF NEW YORK CITY*, and Prof. Irving Lorge, author of "Semantic Count of English Words."

The questions on page 8 present three choices, (a), (b), or (c). Check the correct answer in the space next to the letter. When you have furnished ten answers

for the ten questions, write your name and address on the coupon below the questionnaire. Tear the page out of the book and mail it with your written, signed review to the INFORMATION PLEASE ALMANAC, P.O. Box 3033, Grand Central Station, New York 17, New York.

Additional questionnaires can also be obtained without charge by writing to the INFORMATION PLEASE ALMANAC at the above address, and enclosing a stamped, self-addressed envelope.

Since we publish special editions for newspapers throughout the country in addition to our general edition, we will award the twenty-five sets of the WORLD BOOK ENCYCLOPEDIA on the following basis:

Twenty sets will be allocated to the various newspaper editions, and five sets of the WORLD BOOK ENCYCLOPEDIA will be allocated to the general edition.

Due to restrictions imposed by the states of New Jersey, Connecticut, Kentucky, and Nebraska, entries will not be accepted from residents of these states.

QUESTIONS

1. What is the monetary unit of Austria?
(a) mark (b) krone (c) schilling
2. The only man ever to manage a pennant-winning team in both major leagues was:
(a) Leo Durocher (b) Joe McCarthy (c) Casey Stengel
3. In which of the states of the United States does a condemned man have a choice of method of execution?
(a) Georgia (b) Texas (c) Utah
4. What is the language most commonly spoken in Belgium?
(a) French (b) German (c) Flemish
5. Who is the oldest individual in this group?
(a) Konrad Adenauer (b) Jack Benny (c) Winston Churchill
6. What President had the largest number of children?
(a) Franklin D. Roosevelt (b) William Harrison (c) James A. Garfield
7. Which state has the lowest legal minimum marriage age, with parental consent for females?
(a) Georgia (b) New Hampshire (c) South Carolina
8. Which European capital is farthest north?
(a) Oslo (b) Helsinki (c) Reykjavik
9. What city is the birthplace of James Cagney?
(a) Dublin, Ireland (b) New York City (c) Cork, Ireland
10. What is the only Latin American country which derives its language and culture from Portugal?
(a) Paraguay (b) Argentina (c) Brazil

General edition

Name _____

Address _____

City _____ State _____

All entries must be postmarked not later than March 1, 1960.

LIGHT AND SERIOUS TOUCHES

By Marcus Duffield

JANUARY 1959

WADING BRAVELY into this gaudy New Year, we did a little stock-taking about that good old, bad old 1958. It had been a year of economic recession, but not in all branches of the economy. Contracts for jails and penitentiaries had jumped to \$96 million, nearly double 1957. Embezzlements from business firms had jumped 250 per cent and were costing insurance companies something over \$57 million a year. Bad checks were on the upturn, including one drawn on the "East Bank of the Mississippi." . . . There were nicer things. The total value of stocks on the New York Stock Exchange had risen higher than ever in dollar value in the Big Board's 166-year history—from \$196 billion to \$275 billion. . . . We could look forward to wonderful new telephones—one that would light up to tell an overworked business man what happened when he was out for a coffee (?) break. Also a drive-up phone that would stick its obliging neck out for a passing motorist. . . . In the world of fashion, the National Cap & Cloth Hat Institute was horrified by the revival on TV of old movies showing gangsters wearing caps; only nice people should wear them now. In the world of business, firms kept making odd marriages. A manufacturer of deadly missiles showed his faith in the indestructibility of the human female. He bought control of a company making women's foundation garments called "Naturalflex."

FEBRUARY 1959

KINGS AND QUEENS never carry any money in their jeans, and now we commoners didn't need to, either. Just carry a credit card, and stroll right into never-never land. Flash your card if you want to see a Chicago White Sox baseball game. The pioneer Diners Club now claimed a membership of 800,000. With its ticket you could buy a suit in New York and pay later. The reasoning here was that if you bought a meal on the cuff, you had to have a cuff. Newcomers to the credit-card field were American Express and Hilton Hotels. Nobody yet thought of credit cards for taxicabs or madams. . . . In Congress there was a mild scandal. A Congressman from Iowa was hiring his son, 19, for \$11,000 a year at government expense. A Congressman from Indiana was charging the government \$1,800 for rent on his own front porch because it was his part-time office; he nibbled the government for another \$4,424 to pay his wife for running the office. . . . High on the best-seller list was a novel, *Lolita*, which sent governmental authorities into a tizzy. Some places in America and England banned it; others were tolerant. . . . It was a cold winter for Actress Debbie Reynolds. Her husband of 3½ years, Eddie Fisher, divorced her in order to marry Elizabeth Taylor, widow of Mike Todd.

Debbie got nothing but a Palm Springs ranch, seven life insurance policies, three bank accounts, a jeep equipped for uranium prospecting, a \$125,000 home, and alimony of \$36,000.

MARCH 1959

OUR KINDLY civilization was fond of children and skin-divers. Children got a new clock called "Tic-Toy" which kept time and was a foot high, and the deal little tots could take it apart and put it back together, thanks to colored parts like a jigsaw puzzle. This relieved a frustration kids have been suffering for hundreds of years. As for the skin-divers, a timely measure of protection was taken on their behalf. For a long time, hunters in the forest have worn red jackets so they wouldn't be mistaken for deer and shot. Now skin-divers got red and green suits so they wouldn't be mistaken for fish and speared. . . . Speaking of sports, there was a college-boy craze that extended from South Africa to California. How many could wedge themselves into a phone booth at once? St. Mary's College in California claimed the championship with 22 in a booth. . . . Onward and upward with refinement: Macy's department stores, which have dogs patrolling the stores at night looking for larcenous-minded stow-aways, trained the dogs not to bite the seat of the pants off victims. Undignified. . . . Month's new product: An entire line of women's shoe polishes which contain perfume. . . . On the "roof of the world" there was trouble. The people of remote Tibet revolted against their Chinese conquerors. The Tibetan rebels were crushed in the same manner as Communist Russia had crushed the people of Hungary. Even India's neutralist Premier Nehru was shocked.

APRIL 1959

HAIR WAS in the air everywhere. New specialty of Elizabeth Arden was false eyebrows to go with false eyelashes. For men, Sears Roebuck published a special catalogue aimed at the 15 million bald men in the nation. With the catalogue came a paper pattern for measuring head shape; you mailed this in with the order for your wig, along with a wisp of whatever hair you had left so the color could be matched. In due time the postman would deliver your wig. A New York department store advertised that it was willing to sell your wigs in fifteen shades (almost as many varieties as Howard Johnson restaurants has ice creams). This hirsute-minded store had several shades of blonde wigs—strawberry, golden, straw—as well as ice blue and orange ice. It offered to supply a mother-daughter wig combination so little Mary would look like Mamma. . . . In Israel, Mrs. Franklin D. Roosevelt bought a \$77 camel for her granddaughter, but our mean old Department of Agriculture wouldn't let it in the country lest it have hoof-and-mouth disease. . . . P.S. on those credit cards (see February): The American Express Co. posted its first blacklist of deadbeats in San Francisco, including some high livers widely regarded as rich.

. . . Distinguished visitors from Russia: the famed Bolshoi Ballet. New Yorkers were so frantic to see them at the Met that scalpers pushed tickets up and up to \$150 a ticket. . . . The United States acquired a new Secretary of State, Christian A. Herter, to replace the ailing John Foster Dulles, who was doomed to die of cancer in May.

MAY 1959

THE PARTIES that corporations threw for their stockholders never were so large and lively as in the spring of 1959. At the meeting of Radio Corp. of America, with 1,500 stockholders present, a red-haired female named Gloria, who owned one share, socked another feminine shareholder for calling her a tramp. At the annual meeting of Skiatron Electronics and Television, a woman stockholder called the police when she thought things were coming to blows; they didn't, though. At the General Electric meeting, two and a half tons of food were served to the 1,700 stockholders in attendance. Champion of all was the A.T.&T. meeting, which drew an all-time high of 12,000. Physicians and nurses were on hand in case anybody got squeezed or pinched in the crush. . . . Moving from the mundane to the celestial: fabulous feats were a-fly. Two little girl monkeys, unromantically named Able and Baker, soared into outer space in a Jupiter rocket. Starting from Florida, these pioneer space animals shot up as high as 300 miles and came back to earth 1,500 miles away. They were plucked from the Caribbean Sea, alive and feeling fine, thanks. Meanwhile, seven men called astronauts were in rigorous training to emulate the flight of the monkeys. One of the seven would be shot into space, perhaps in 1960, and come back unscathed, he hoped.

JUNE 1959

SOCIAL NOTE: Once upon a time it was the back fence that women gossiped over. Now, onward and upward with the art of gossip. A supermarket chain with 1,400 stores across the nation was installing lounges with foam-rubber sofas, and vending machines for soft drinks. . . . Financial note: Housewives to the total of four million own stock shares. In this \$ battle between the sexes they outnumber the male investors. . . . Abroad: At Geneva, the Big Four Foreign Ministers were making speeches at each other about the Berlin situation. Slipperiest speeches were by Russia's Gromyko. The Conference was getting nowhere at a terrific pace, but there was delicious food at the luncheon. . . . Back home: The Open Golf champion, Bill Casper, Jr., got a \$2,000 bonus from a golf-ball outfit, and expected further bonuses from an underwear firm and from a shoe company named Foot Joy. . . . New Products Dept.: There is a motorized bed that wakes you up in the morning by raising you to a sitting position. It also turns on the radio and starts percolating the coffee. No bathroom. . . . Old products: An emporium in New York would be glad to sell you an eighteenth-century porcelain owl for a mere

\$29,000. . . . Segregation note: A book for tiny tots showed a black rabbit marrying a white rabbit. Said an Alabama State Senator: "This book should be taken off the shelves and burned." Off the shelves it was taken, but not burned—just secreted.

JULY 1959

For lo! these hundred days, the silliest book of the year was happily riding the best-seller list. *My Brother Was an Only Child* was strictly a bunch of gags, which was an achievement because you generally take foolish gags better by ear than by eye. Chapter 47 was entitled "Lord Chesterfield's Last Letter to His Son," and its entire text consisted of: "Dear Junior: Get Lost. Dad." . . . The solemn Justices of the United States Supreme Court went to a movie. They solemnly okayed *Lady Chatterley's Lover*, because there should be free expression of ideas, including the idea that adultery can be understandable. Also on the best-seller list were unexpurgated book editions of *Lady Chatterley*—for the first time in the generation since D. H. Lawrence's novel first was published. . . . On the LP record front, one of the top sellers, oddly enough, was a nonmusical record called *Inside Shelley Berman*, which was in the general stream of the fad for humor mixed with horror and mayhem. . . . On the dining-out-in-luxury front, New York City's Park Avenue produced a new restaurant—The Four Seasons. A dinner for two with drinks and tips was not likely to cost more than \$70 unless you were the extravagant type. Decorations included fifteen trees, some as tall as eighteen feet, and they were of the exotic type, not like elms.

AUGUST 1959

A relatively new phenomenon in newspaper advertising blossomed as never before. People bought millions of dollars worth of what might be called public-relations ads to argue about both domestic and international affairs. The newspapers didn't mind at all. First came the steel strike. The union spent half a million dollars to tell the public how wrong was the steel industry. And the steel industry spent another half million to tell the public how wrong was the striking union. Then came President Eisenhower's invitation to Prime Minister Khrushchev to visit the United States. A full-page ad said: "Please Mr. President, Don't." This was a message from the Committee Against Summit Entanglements. And a rival three-quarter-page ad from Freedom House was headed: "What YOU Can Do About Khrushchev's Visit." . . . Department of Less Weighty Affairs: Stores were selling more bow ties than they had in years; Secretary of State Herter unintentionally publicized them by wearing them all the time. . . . Residents of New York State considered going on the wagon when they saw rabbits with pink tails, or yellow, or blue. No cause for jitters—the state went in for tail-dyeing to help in a rabbit

census. . . . New Products Department: False teeth for cows, consisting of stainless-steel caps to keep them from wearing down their dentures and thus cutting down on calves.

SEPTEMBER 1959

Bang on the nose, a Soviet rocket hit the Man in the Moon, and the world looked on with awe. A few days later, Nikita S. Khrushchev, the Great Bald Father of all the Russias, hit the American people with a bang, and the world watched with vast curiosity. As though he were running for political office, Mr. K. ate his way from coast to coast—banquets every night (including the White House), his first U. S. hotdog in a Des Moines packing plant (affectionately, he patted a huge pig in the packing plant), and a picnic in an Iowa cornfield. Mostly he showed his fangs in wide grins, but now and again he lost his temper and showed them in a fit of anger, as the time somebody asked him why he had crushed the Hungarian revolt so brutally. This pudgy combination of actor and ogre gave no indication that he had changed his mind about the grim Soviet threat to West Berlin—just postponed the squeeze. . . . Meanwhile, Soviet threat or no, it couldn't be denied that our country was pampering itself. Did Russia have our newest product—a portable depth-sounder which would flash a red signal when an amateur fisherman in his rowboat passed over an unsuspecting fish? Or did Russia have magnetic playing cards that stuck to a magnetized board so you could play cards on the beach without seeing the wind whip away the game?

OCTOBER 1959

Time was when a compact was a gadget women dabbed their noses out of. Now it's an automobile. Time was when Herbert Hoover promised a chicken in every pot and two cars in every garage; but along came a little mishap to our economy, and the chickens and the cars flew away. Now along comes that second car—a "compact," 15-ft. long, \$1,800-up. "Compact," remember, not a "bug"; save that undignified term for small foreign cars. Our own compacts began to dart all over the place, bearing names that indicated they weren't scared of their massive papas—names like Falcon (bird of prey) and Valiant. Britain's haughty Rolls-Royce looked down through its monocle and came out with a 20-ft. car, only \$26,300. . . . This was the Month of the Great Disillusionment for the millions who gulped down TV quiz shows. A mean old congressional committee found out that life was made easier for a lot of the contestants by feeding them the answers in advance. . . . Oh, well, we could solace ourselves with the newest martini. A big distiller put on the market the first genuinely dry martini—no vermouth at all.

HEADLINE STORIES OF 1959

NIKITA S. KHRUSHCHEV

Nikita S. Khrushchev, Chairman of the Council of Ministers of the U.S.S.R., is commonly known as Premier. He long wanted to visit the United States, and repeatedly hinted. The late Secretary of State Dulles was opposed to inviting him, as was President Eisenhower. A partial change in American official attitude, therefore, was involved in extending the invitation in the late summer of 1959. The most reasonable explanation was that Eisenhower realized that the other channels of diplomatic communication—Foreign Ministers' meetings and ambassadorial meetings—were clogged, and the only hope of getting negotiations with the Soviet Union flowing again was to talk with Khrushchev.

The world's largest plane, a Russian TU 114 turbojet, brought Khrushchev and his party nonstop from Moscow to the United States in 12 hours 24 minutes, arriving in Washington on Sept. 15. He spent two days in the capital, conferring with Eisenhower, dining at the White House, and taking a sight-seeing ride in the President's helicopter (a copy of which he later planned to buy for himself). The security guards protecting him here and throughout his trip were the heaviest known. The crowds in Washington lined the streets to see him, apparently out of curiosity, not enthusiasm, and were in the main silent.

Sept. 17 and 18 were spent in New York. Khrushchev made a speech at the United Nations General Assembly Sept. 18 in which he urged total disarmament by all nations.

Then to Los Angeles, where Khrushchev became so angry at a remark by Norris Poulson, Mayor of Los Angeles, that he threatened to break off his trip and go home.

From late Sept. 20 until early Sept. 22, Khrushchev was mostly happy in San Francisco, where the crowds were warmer toward him. He talked with AFL-CIO leaders and with workmen, and visited a factory. However, the AFL-CIO adopted a resolution calling him "more truculent and demanding in his aggression than Stalin."

Now to Iowa, where he visited a farm machinery plant and a packing plant near Des Moines. He ate his first American hot dog and pronounced it better than Russia's. He patted a huge hog.

Next to the farm of his friend, Roswell Garst, whom he had met in Moscow at Coon Rapids, Iowa. There he reveled in the tall corn fields, had a picnic luncheon, and talked with Adlai E. Stevenson.

Climax of the trip was the week end of Sept. 25-27. President Eisenhower took Khrushchev to Camp David in Maryland, and the two had a series of talks, sometimes tête-à-tête without advisers. Their final communiqué said they had been "agreed that the question of general disarmament is the most important one facing the world today." Otherwise, the communiqué was full of the usual phrases about the need of relaxing international tension and pro-

serving peace—phrases which Khrushchev had used repeatedly in his many speeches across the country.

One thing not in the communiqué was important. The President said at his special Sept. 28 press conference: “. . . we agreed that these [Berlin] negotiations should not be prolonged indefinitely, but there could be no fixed time limit on them.” Back in Moscow on Sept. 29, Khrushchev confirmed this understanding with Eisenhower.

[A potentially grave international threat was made by Soviet Premier Khrushchev in November, 1958. He demanded that the United States, Great Britain, and France end their occupation of West Berlin and withdraw their troops, numbering about 11,000. Khrushchev originally set six months as a time limit.

The Western Allies have occupied roughly three-quarters of the city of Berlin since 1945 by right of conquest and in agreement with the Russians, who hold control over East Berlin. The city is completely surrounded by Soviet-controlled East Germany.]

The importance of this was that Eisenhower no longer felt himself under the duress of a Soviet deadline for settling the Berlin dispute. Therefore, the way was opened up for further negotiations, probably at a summit meeting of heads of governments.

After staying in Moscow only 30 hours 26 minutes, Khrushchev took off again by plane for Peiping, where he reported on his trip in the United States and participated in the celebration of the 10th anniversary of the Communist Chinese regime.

As part of the arrangements for the Khrushchev visit, President Eisenhower accepted a reciprocal invitation to visit the Soviet Union. He was originally to go to Moscow late in the fall, but his trip was postponed until the pleasanter weather of next spring.

NIXON IN RUSSIA

Soviet Russia put on an exhibition in New York City's Coliseum in the summer of 1959, and the United States put on an exhibition in Moscow. The two were comparable, showing industrial products, model homes, fashions, and cultural objects such as paintings and books.

Both shows were highly successful from the point of view of attendance. New York's Coliseum director said the Soviet exhibition had drawn 1.1 million persons in its forty-two days—the highest attendance of anything in New York since the World's Fair of 1939. At the American exhibition in Moscow the attendance averaged 50,000 a day. Some American books had to be put under lock and key because the Russians found them “objectionable.”

The American exhibition in Moscow was opened by Vice President Richard M. Nixon, with Premier Khrushchev in attendance. Khrushchev chose the kitchen of the American model home as the scene of a public harangue. Khrushchev said harsh things and Nixon talked right back. It was an extraordinary high-level verbal brawl.

The atmosphere was quieter when Khrushchev, a few days later, had Nixon

and his wife as guests at his dacha (summer home) in the Moscow suburbs and talked over the international situation at length.

Thereafter, Nixon visited Novosibirsk in Siberia and Sverdlovsk in the Ural Mountains, both centers of Soviet manufacturing. Mainly, the response of the people was friendly and enthusiastic.

TIBET

Chinese Communist troops invaded Tibet in 1950 and established rule over that once-powerful kingdom which lies between China and India. Tibet has been called "the roof of the world." Its average elevation is higher than the highest mountain peak in the United States—California's Mt. Whitney, 14,495 feet.

Tibet had a theocratic government presided over by the Dalai Lama. There was also a rival Panchen Lama, whose status was not quite clear to the outside world. Communications with Tibet are almost nonexistent.

In March, 1959, a revolt flared in Tibet against the Communist Chinese conquerors. Its motive was expressed by a brother of the Dalai Lama. "Our religion is going," he said. "Our race is going. We are being wiped out by the Chinese."

The young god-king of Tibet, the Dalai Lama, fled from his country to avoid capture by the Chinese Reds. It took him thirty-five days to make his secret trip, mostly by muleback, through mountain passes into the safety of India. Prime Minister Nehru granted him refuge in the Himalayan resort town of Mussoorie.

Meanwhile, the Chinese Reds had suppressed the revolt in Tibet, except for guerrilla forays. They elevated the Panchen Lama to theoretical rule.

CUBA

On July 26, 1953, a Havana University law graduate then in his late twenties started a revolution in the Oriente Province of Cuba. He was Fidel Castro, son of a wealthy sugar planter. His revolution was directed against the dictatorship of Gen. Fulgencia Batista, who had ruled Cuba for most of a quarter century.

Castro's revolt failed, and after two years in jail, he was exiled to New York City and Mexico. In December, 1956, Castro tried it again. He and eighty-two followers sailed from Mexico to Cuba in a leaky boat and holed up in the Oriente mountains. From there they waged a seemingly hopeless guerrilla-warfare revolt against Batista.

But Batista had several things against him. He lost the sympathy of the peasants, most of them landless. Also he lost the support of large financial and commercial interests because his misrule was dragging Cuba into economic chaos. Batista is said to have looted the treasury of some \$200 million, or half its foreign exchange.

On the first day of 1959, Batista flew to exile in the Dominican Republic. Castro had won an incredible victory. He soon took over as Premier.

Castro steered a Leftist course. He decreed the splitting up of the great sugar and cattle lands (8% of the landowners owned 75% of the land). He planned to turn over land to 150,000 Cuban families by the beginning of 1960.

In splitting up these lands, Castro did not expropriate them outright. He paid compensation, but the compensation was regarded by the landholders as so far below the real value as to amount to partial confiscation. American-owned sugar plantations were seriously affected, inasmuch as they grow about one-third of Cuba's sugar crop.

Was Castro a Communist, as charged by a Cuban Air Force officer who defected to the United States? Castro stoutly maintained that he was not a Communist. American observers believed that Communists were infiltrating into Cuban labor unions and armed forces.

Another question was whether Castro was trying to export his revolution in order to bring down other dictators similar to Batista in Latin America. There were nebulous reports that Cubans (perhaps mercenaries) had attacked the Dominican Republic presided over by Gen. Trujillo. There were counter-reports that Trujillo was in a mood to attack Castro.

Partly because of these reported attacks, the Organization of American States summoned a meeting in August, 1959. The OAS found itself in a ticklish position. Its avowed goal was to protect Latin American nations against external aggression. At the time of the signing, the possible external aggressor was considered to be Russia. The question now was whether to regard Cuba as an external aggressor if it attacked the Dominican Republic, or vice versa.

THE STEEL STRIKE

Half a million steel workers in the United States went on strike at midnight, July 14, 1959. It was the sixth steel strike since World War II.

Many other industries were imperiled by the steel strike. The automobile industry had foreseen the strike and built up large inventories of steel.

The United Steelworkers of America, under the presidency of David J. McDonald, demanded a 15-cents-an-hour pay increase and other benefits. This was later cut to about 10 cents an hour.

The steel industry asserted that a wage increase would be inflationary because it would necessitate an increase in the price of steel, which would affect scores of industries forming the web of the American economy. The industry offered a "modest" wage increase in 1960, plus pension and insurance benefits, but it attached a proviso. The union must relinquish what the industry called its "featherbedding and loafing" practices. "Featherbedding" is regarded as requiring more workers than are necessary for the work. "Loafing" includes coffee breaks.

President Eisenhower announced at the beginning of the strike that the government would keep hands off. As the strike continued, he modified his

position somewhat. He authorized his Secretary of Labor, James P. Mitchell, to make a fact-finding survey of the strike situation. On the thirty-sixth day of the strike, Aug. 20, 1959, Mitchell made public his report. Following are a few of the highlights:

Since 1950, gross hourly earnings of steel workers have risen \$1.43, which is 85%. When the strike started, the average level of earning was \$3.10 an hour, as compared with \$2.23 in manufacturing as a whole. Building construction was ahead at \$3.17.

Prices are "at peak levels," averaging 178% over 1940. Steel prices have risen "higher and faster than wholesale prices in general."

Since the war, steel industry profits "have been higher than the comparative ratio for all manufacturing." In the first half of 1959, steel companies earned 16.1% return as compared with a 14.1% average for other large industries.

The Mitchell report made no recommendations for a strike settlement.

In terms of dollars, Roger M. Blough, board chairman of the United States Steel Corp., reported record company sales of \$2.5 billion in the first half of 1959, and record dividends per share of \$4.50 as compared to \$2.29 in the first half of the previous year.

The strike dragged on through more than three months, the longest steel strike in U. S. history. Finally, on Oct. 19, President Eisenhower invoked the Taft-Hartley law requiring the men to return to work for eighty days. Issuance of the injunction was delayed, however, by a Federal Court of Appeals in Philadelphia, acting at the request of the union.

DULLES, LUCE, AND STRAUSS

No man in the Administration was so close to President Eisenhower or so influential with him as John Foster Dulles. The Secretary of State molded the nation's foreign policy with a power that few of his predecessors have wielded.

Dulles was operated on for intestinal cancer in November, 1956, but he bounced right back into his arduous job. At the beginning of 1959 he was in serious pain again. He said nothing and went on a diplomatic mission to Europe. In the last six years he had traveled 560,000 miles on his official duties—a distance equal to a trip to the moon and back.

On Feb. 14, 1959, it was disclosed that Dulles was suffering from the same type of cancer which had attacked him before. He was now almost 71.

Trying desperately to hang onto his job, Dulles had therapy treatments. But on April 16, the White House announced the resignation of Dulles. The cancer killed him on May 24.

The new Secretary of State was Christian A. Herter, who had been a close assistant to Dulles, and whom Dulles had favored as his successor. The 64-year-old Herter, from Massachusetts, had twice been Governor of his state and at one time a Congressman. Herter suffers from arthritis and uses cane, but in the early months of his new job he was just as indefatigable a traveler to Europe and South America as Dulles had been.

Luce and Strauss

The Senate confirmed the appointment of Herter quickly and unanimously. In two other cases of Presidential appointments which made headlines in the spring of 1959, there was no Senate unanimity.

There was a long wrangle over Mrs. Clare Boothe Luce, named to be Ambassador to Brazil. (She had been our Ambassador to Italy in 1953.) Her chief opponent was Sen. Wayne Morse, Oregon Democrat. He cited her bitter campaign speeches of 1944 in which she called President Roosevelt the only President who "lied" the country into war instead of leading it.

The Senate confirmed Mrs. Luce, 79-11, on April 29. Thereafter, she made one of the acidulous wisecracks for which she has become famous. "My difficulties," she said, "go some years back when Sen. Wayne Morse was kicked in the head by a horse." (A horse did kick Morse in the teeth on Aug. 4, 1951.) But the Luce remark infuriated some Senators, who said they wished they hadn't voted for her.

In the midst of the uproar Mrs. Luce resigned as Ambassador on May 1, without even getting close to Brazil.

Another appointee by President Eisenhower was Adm. Lewis L. Strauss to be Secretary of Commerce. On June 19, 1959, the Senate refused to confirm him, 49-46. It was the bitterest confirmation fight in years, lasting through two months of hearings, March to May. The last time a Presidential Cabinet appointment had been rejected was in 1925, when President Coolidge's naming of Charles B. Warren as Attorney General was rejected.

Strauss previously had been chairman of the Atomic Energy Commission and had won the dislike of numerous Senators, notably Clinton P. Anderson, D., N. M., chairman of the Congressional Atomic Energy Committee. He and other foes of Strauss accused him of dictatorial tactics as head of the AEC, and of evasive replies to senatorial questions.

HAWAII

American commercial interests, principally sugar growers, established themselves in Hawaii in the 1890's. By 1898 they had supplanted the native kings and helped Hawaii to cede itself to the United States as a territory.

Almost immediately, Hawaii aspired to statehood, and it has been knocking at the gates of the Union for roughly half a century. With its eight main islands, Hawaii has more square miles than Connecticut, but only about a quarter of the population—or some half million.

Two chief objections were raised to the admission of Hawaii as a state. One was that it is separated from the United States mainland by 2,000 miles of Pacific Ocean. Another objection was its polyglot population, including, in addition to native Hawaiians and Americans, persons of Chinese and Japanese ancestry.

As far back as 1940 the people of Hawaii voted 2-1 in favor of becoming a state, but it still was left waiting. Alaska was admitted, becoming the forty-ninth state on Jan. 3, 1959.

Finally, Hawaii made it. By congressional vote completed March 12, 1959, Hawaii became the fiftieth state of the Union.

On July 28, 1959, Hawaii elected its first two Senators and one Representative to the United States Congress. The winner of the House seat was Daniel K. Inouye, a Japanese-American and a Democrat. A Chinese-American, Hiram L. Fong, a Republican, was elected to the Senate, as was a Democrat, Oren E. Long, a native of Kansas who was an educator in Hawaii.

NEWS CHRONOLOGY OF 1959

(For missile chronology, see page 28)

JANUARY 1959

- 1 President Batista resigns and flees Cuba; Castro's revolt wins.
- 1 Nelson A. Rockefeller inaugurated Governor of New York.
- 4 Soviet 1st Deputy Premier Anastas I. Mikoyan arrives to visit U. S.
- 8 De Gaulle takes office as President of France for 7 years.
- 17 Castro, winner in Cuba, predicts 450 executions of Batista's followers; 205 reported shot now.
- 19 Eisenhower calls for \$77-billion budget for fiscal 1960, with \$70-million surplus.
- 27 Khrushchev tells Communist party congress that Russia now mass produces intercontinental missile.
- 28 Eisenhower labor bill asks curbs on union abuses; farm bill (Jan. 29) asks lower price supports.
- 29 Defense Secretary McElroy admits Russia runs ahead in long-range missiles; says we won't race.
- 30 Oldest Senator ever—Theodore F. Green, 91—quits as Democratic chairman of Foreign Relations Committee.
- DIED:* 4—Seymour Berkson, 53; 21—Cecil B. de Mille, 77.

FEBRUARY 1959

- 2 Negroes admitted to formerly white schools in Norfolk and Arlington, Va.
- 3 65 die, 8 saved as American Airlines prop-jet falls into East River, short of La Guardia Field.
- 11 Greece and Turkey agree on independence for Cyprus after long dispute.
- 14 Doctors announce Dulles has cancer of the abdomen.
- 15 Antonio Segni, Christian Democrat, is new Premier of Italy.
- 20 Presidents of U. S. and Mexico agree to finance jointly a new dam on Rio Grande.
- 24 Khrushchev's hostile speech spoils British Prime Minister Macmillan's visit to Soviet Union.

- 26 U. S. Navy boards Soviet fishing trawler off Newfoundland after 5 transatlantic cables are cut.
- 27 Dave Beck, former boss of Teamsters' Union, sentenced to 5 years in prison, fined \$60,000, for income-tax evasion.
- DIED:* 1—Willie Hoppe, 71; 4—Una O'Connor, 78; 7—Daniel F. Malan, 84; 20—Laurence Housman, 93; 28—Maxwell Anderson, 70.

MARCH 1959

- 11 Gov. Rockefeller wins battle in legislature to raise New York State taxes.
- 12 Congress votes admission of Hawaii as 50th state.
- 13 Revolt breaks out in Tibet against Communist Chinese rule.
- 16 Yale puts all 4,000 students on probation after snow-fight riots.
- 20 Eisenhower and Prime Minister Macmillan start talks on Berlin crisis at Camp David, Md.
- 28 17 Senators disclosed to have total of 22 relatives on Federal payrolls.
- DIED:* 3—Lou Costello, 52; 6—Fred Stone, 85; 15—Duncan Hines, 78; 15—Lester (Prez) Young, 49; 26—Raymond Chandler, 70.

APRIL 1959

- 1 New York City budget of over \$2 billion is biggest yet.
- 2 Tibet's Dalai Lama escapes into India.
- 5 Chinese Communists install puppet Panchen Lama as ruler of Tibet.
- 9 U. S. picks 7 spacemen; one will go into orbit in 1961.
- 10 Crown Prince Akihito of Japan wed commoner.
- 11 Sen. Thruston B. Morton of Kentucky named new Republican National Chairman.
- 12 U. S. proposes ban on nuclear explosion tests except underground or over 3 miles up.

- 16 Bolshoi Ballet from Moscow makes American debut in N. Y.
 - 18 Christian A. Herter named Secretary of State to succeed cancer-stricken John Foster Dulles, who resigned.
 - 25 Senate passes new labor bill, 90-to-1; aimed at racketeering unions.
 - 25 St. Lawrence Seaway opens, allowing ocean ships to go into Midwest.
 - 27 Liu Shao-chi named President of Communist China to succeed Mao Tse-tung, who relinquished office.
 - 28 Mrs. Clare Boothe Luce confirmed by Senate as Ambassador to Brazil. (She resigns May 1 at request of her husband, Henry Luce, because of Senate uproar.)
- DIED:** 9—Frank Lloyd Wright, 89; 12—James Gleason, 72; 13—Eduard van Beinum, 57.

MAY 1959

- 5 Steel industry begins acrimonious wage negotiations.
 - 6 Picasso painting of nude Dutch girl brings \$154,000, highest for work of living artist.
 - 11 Foreign Ministers' conference opens in Geneva.
 - 11 U. S. employment rises to April record, 65 million, and unemployment drops to 3.6 million.
 - 12 Capital Viscount turbo-prop airliner flying from New York to Atlanta explodes near Baltimore, killing all 31.
 - 14 West offers package plan for Germany at Geneva conference, calling for freedom in 4 stages.
 - 18 Russia rejects West's package proposal for Germany; West rejects Soviet plan for separate peace treaties with East and West Germany.
 - 21 U. S. rounds up 27 underworld leaders in drive on Mafia.
 - 24 Former Secretary of State John Foster Dulles dies of cancer. (Funeral attended May 27 by 14 Foreign Ministers.)
 - 26 Khrushchev, on mystery trip to Albania, threatens Greece and Italy on rocket bases.
 - 31 Gov. Earl K. Long of Louisiana in psychiatric clinic in Galveston, Tex. (Committed as mentally ill June 2.)
- DIED:** 5—Hal McIntyre, 42; 8—Donald A. Quarles, 64; 14—Sidney Bechet, 68; 16—Joe Cook, 69; 24—John Foster Dulles, 71.

JUNE 1959

- 8 Supreme Court backs rights of Congress and states in subversion inquiries.
- 13 Adlai E. Stevenson rejects 3rd Presidential candidacy in 1960; says, "I will not be the nominee."

- 15 2 Communist MIG's attack U.S. Navy patrol plane off North Korea, wounding crewman.
 - 19 Senate rejects (49-46) nomination of Lewis L. Strauss to be Secretary of Commerce.
 - 20 Big Four Foreign Ministers conference in Geneva recesses in deadlock until July 13.
 - 22 4 white youths sentenced in Florida to life in prison for raping Negro college student.
 - 23 British set atom spy Klaus Fuchs free after 9 years in prison and put him on plane for East Germany.
 - 23 Herter tells U.S. that Russia wants to make West Berlin "a slave city."
 - 26 Gov. Earl K. Long, of Louisiana, gets out of mental hospital by discharging its superintendent.
 - 26 68 die in crash of TWA airliner in Italy, including 34 Americans.
 - 29 Soviet exhibition opened in New York City by 1st Deputy Premier Frol R. Kozlov; Eisenhower attends.
- DIED:** 1—Sax Rohmer, 76; 18—Ethel Barrymore, 79.

JULY 1959

- 4 U. S. flies new 49-star flag to celebrate Alaska's statehood. (Hawaii's star to be added next July 4.)
 - 5 France gives Saar completely back to Germany, ending economic controls.
 - 5 President Sukarno of Indonesia abolishes 1950 provisional constitution and takes full power.
 - 6 Queen Elizabeth II visits Chicago.
 - 13 Big Four Foreign Minister's conference reopens in Geneva; deadlock still indicated.
 - 15 Nation-wide steel strike begins, with 500,000 steel workers out.
 - 21 World's first nuclear merchant ship launched at Camden, N. J.
 - 21 Post Office ban on *Lady Chatterley's Lover* voided by U. S. Federal Judge.
 - 24 Vice President Nixon, in Moscow to open U. S. exhibition, engages in public argument with Khrushchev at fair.
 - 28 U. S. Steel Corp. discloses record profits of \$254.9 million in first half of 1959.
 - 29 Hawaii completes vote count in first election as 50th state; two of Oriental ancestry elected to Congress.
 - 31 India's Nehru ousts Communist regime in state of Kerala.
- DIED:** 6—George Grosz, 65; 15—Ernest Bloch, 78; 17—Billie Holiday, 44; 17—Eugene Meyer, 83; 20—Fleet Adm. William D. Leahy, 84; 22—Douglas McKay, 66.

AUGUST 1959

- 2 Warsaw goes wild at Nixon visit, shouting, "Hurrah for America!"
- 3 Khrushchev and Eisenhower announce reciprocal visits.
- 5 Senate probers charge James R. Hoffa used union funds to pay \$3 million to mobsters.
- 6 Eisenhower on TV urges stronger labor-reform bill.
- 7 Queen Elizabeth II of Britain expects 3rd child in January.
- 12 Little Rock public high schools reopen at court order, admitting 5 Negroes; police use clubs on protesting mob.
- 12 21-nation meeting of American Foreign Ministers opens in Santiago, Chile, to keep peace.
- 17 AFL-CIO votes to readmit 60,000 member International Longshoremen's Assn. after 6-year expulsion for corruption.
- 18 Earthquakes and landslides just off Yellowstone National Park kill at least 18 persons.
- 22 Steven Rockefeller marries Anne Marie Rasmussen in Norway. She was former maid in home of his father, Nelson Rockefeller, now Governor of New York.
- 26 Eisenhower gets tremendous welcome in Bonn and (Aug. 27) in London.
- 28 Prime Minister Nehru of India charges aggressive military action by Chinese Reds in border areas.
- 29 Eisenhower and Macmillan review world problems in London.
- 29 India reinforces army on Tibet border to block Chinese incursions.
- 30 New outbreak of teenage violence in New York City playground; two youngsters stabbed to death.

DIED: 5—Edgar A. Guest, 77; 6—Preston Sturges, 60; 16—Fleet Adm. William F. Halsey, 76; 16—Wanda Landowska, 80; 16—Benny Fields, 65; 19—Sir Jacob Epstein, 78; 23—Tiffany Thayer, 57; 28—Bohuslav Martinu, 68.

SEPTEMBER 1959

- 2 Paris hails Eisenhower, riding with de Gaulle.
- 4 Laos asks U. N. for armed help to halt invasion of Communist troops from North Vietnam.
- 8 U. N. votes investigation of Laos over Soviet protest.
- 10 First of 146 Eisenhower vetoes overridden by Congress; \$1.2-billion public-works bill enacted.
- 11 Princess Beatrix, heiress presumptive to Netherlands throne, visits New York.
- 14 Soviet rocket hits moon in 36-hour trip over 236,875 miles.

- 15 Khrushchev flies to Washington for 13-day visit to U. S.; talks with Eisenhower.
- 16 Pres. de Gaulle tells Algeria it can vote on its destiny 4 years after rebellion ceases.
- 17 U. S. rocket plane, X-15, flies first time over California, at 1,400 miles an hour.
- 18 Khrushchev, speaking to U. N. General Assembly, asks disarmament of all nations within 4 years.
- 22 Admission of Red China into U. N. again barred for at least another year.
- 22 U. S. raises interest rates on Series I and H bonds by ½ %.
- 27 Typhoon Vera hits Japan; worst in the country's recorded history.
- 27 Khrushchev ends U. S. trip, lifting time limit on Berlin negotiations.
- 29 All 34 killed as Electra turboprop plane from Houston to New York blows up.
- 30 Eisenhower calls both sides in steel strike to White House and persuades them to resume talks.

DIED: 6—Edmund Gwenn, 83; 6—Kathleen Kendall, 33; 11—Paul Douglas, 52; 14—Wayne Morris, 45.

OCTOBER 1959

- 4 Russians shoot "flying 612-lb. laboratory" past moon; it turns back toward earth for orbiting.
 - 6 Congressional probe of TV quiz show hears "21" fed answers to contestants.
 - 8 British Conservatives win election landslide, doubling margin in House of Commons to over 100.
 - 8 NBC suspends Charles Van Doren, \$129,000 winner in "21" quiz show, from his \$50,000-a-year job.
 - 13 U. S. fires Explorer VII into orbit.
 - 15 Nobel medicine prize to two Americans for heredity study—Dr. Severo Ochoa of New York University and Prof. Arthur Kornberg of Stanford University.
 - 16 CBS bans "lavish" give-away TV show after congressional revelations of fixed quiz shows.
 - 17 Soviet police maul U. S. diplomat in Moscow, try to bribe him to spy for them, and demand his recall.
 - 19 Eisenhower invokes Taft-Hartley law to halt for 80 days longest steel strike.
 - 22 Italian poet, Salvatore Quasimodo, wins 1959 Nobel Prize for literature.
 - 26 U. S. physicists, Dr. Owen Chamberlain and Dr. Emilio Segre receive 1959 Nobel Prize for physics; Jaroslav Heyrovsky of Czechoslovakia wins chemistry prize.
- DIED:** 6—Bernard Berenson, 94; 7—Marcel Lanza, 38; 14—Errol Flynn, 50; 14—Gen. George C. Marshall, 78.

HEADLINE HISTORY OF OUR TIMES

Based on Newspaper Accounts of Important Events

The Headline History is based on the date when historical events came to the knowledge of the public through the newspapers. The events themselves may have occurred at a different date. For events previous to Headline History, see Page 527 for Historical and News Events from Ancient to Modern Times. This is compiled by the Encyclopaedia Britannica staff, and it begins with the Battle of Actium in 31 B.C. It includes a chronology of World War I.

See also Conferences and Treaties, pages 458-462, and Postwar Decisions and Treaties, pages 463-464.



- 1917**
Mar. 8—Russian Revolution begins.
Apr. 6—U. S. enters World War I.
- 1918**
Jan. 8—Wilson's 14-point address to Congress calls for self-determination, removal of economic barriers, League of Nations.
July 16—Tsar Nicholas II and family shot.
Nov. 11—World War I ends.
- 1919**
June 28—Versailles Treaty signed.
- 1920**
Jan. 10—League of Nations officially inaugurated as Versailles Treaty goes into effect.
Jan. 16—Prohibition in U. S. goes into effect.
Mar. 19—Senate finally rejects Treaty of Versailles because of League of Nations proviso.
- 1922**
Oct. 27—Mussolini marches on Rome.
- 1923**
Nov. 8-9—Munich beer hall putsch led by Hitler put down; Hitler sentenced to 5 years, serves less than 1; writes *Mein Kampf* in jail.
- 1925**
July 10-21—Scopes evolution trial held in Dayton, Tenn.
- 1927**
May 20-21—Lindbergh flies solo across Atlantic.
Aug. 23—Sacco and Vanzetti executed.
Nov.—Trotsky expelled from Communist party.
- 1929**
Oct. 24—Worst stock crash wipes out thousands of accounts.
- 1931**
Sept. 18-19—Explosion on Manchurian railway serves as pretext for Japan to begin occupation of Manchuria.
- 1932**
Jan. 7—Stimson Doctrine: U. S. will not recognize gains achieved by armed force; recognition of Manchukuo withheld.
Jan. 28—Japan begins invasion of international settlement of Shanghai.
June 7—Bonus March on Washington, D. C.
- 1933**
Jan. 30—Hitler made Chancellor of Germany by Hindenburg.
Mar. 5—Reichstag elections give Nazis and Nationalist allies 52% of vote.
Mar. 6—Roosevelt proclaims bank holiday; embargoes gold.
Mar. 12—FDR's first "Fireside Chat."
Mar. 23—Reichstag gives Hitler blanket powers for 4 years; 94 Social Democrats opposed; many Social Democrats and all Communists under arrest or in hiding.
Mar. 28—Nazis begin systematic boycott of Jewish businessmen, doctors, lawyers.
May 18—Tennessee Valley Authority (TVA) established.
June 16—National Industrial Recovery Act (NIRA) signed. Declared unconstitutional May 27, 1935.
Dec. 5—Prohibition ends in U. S.
- 1935**
Mar. 16—Hitler defies Versailles Treaty by re-establishing universal military training in Germany.
Aug. 14—Social Security Act signed; establishes old-age benefits and unemployment insurance. Upheld by Supreme Court May 24, 1937.

Aug. 20—3rd International decides Russia will side with democracies against Fascist states.

Sept. 15—Nuremberg laws deprive Jews of citizenship and bar intermarriage.

Oct. 3—Italy invades Ethiopia.

Oct. 7—League of Nations condemns Italy.

1936

Jan. 20—George V dies; Prince of Wales becomes Edward VIII.

Mar. 7—Hitler sends German troops into Rhineland, defying Versailles Treaty; denounces Locarno Pact.

July 17—Spanish civil war begins; troops led by Gen. Francisco Franco revolt in Spanish Morocco; uprisings follow all over Spain.

Aug. 19-23—Zinoviev and Kamenev executed in Russia as collaborators with Trotsky and Nazi secret police.

Oct. 1—Franco named Chief of State by rebels; establishes capital at Burgos.

Oct. 27—Rome-Berlin Axis formed.

Nov. 18—Italy and Germany recognize Franco regime in Spain.

Nov. 25—Japan signs anti-Comintern treaty with Germany; Italy adheres Nov. 6, 1937.

Dec. 1-23—Buenos Aires conference: 21 American republics pledge to consult if peace is imperiled; no nation to interfere with another's domestic affairs.

Dec. 11—Edward VIII abdicates; his brother becomes George VI.

1937

June 12—Marshal Tukhachevsky and 7 generals executed in Russia for espionage and high treason.

1938

Sept. 29-30—Britain, France, Italy, Germany in parley at Munich agree to dismemberment of Czechoslovakia; Chamberlain returns to London with "peace in our time."

1939

Mar. 15—Hitler enters Prague.

Apr. 28—Hitler rebuffs FDR's peace plea in Polish quarrel.

Aug. 24—Germany and Russia sign 10-year nonaggression pact.

Sept. 1—Germany invades Poland and annexes Danzig; Britain and France give Hitler ultimatum.

Sept. 3—Britain and France declare war.

Sept. 28—Poland partitioned by Germany and Russia.

1940

May 10—Nazis invade Netherlands, Belgium, Luxemburg.

May 10—Chamberlain resigns as Prime Minister; Churchill takes over.

May 12—Germans cross French frontier.

May 26-June 3—Dunkirk evacuation; about 335,000 out of 400,000 Allied soldiers rescued from Belgium by civilian and naval craft from Britain.

June 10—Italy declares war on France and Britain; invades France.

June 14—Germans enter Paris; city undefended.

June 22—France and Germany sign armistice at Compiègne.

Nov. 14—Nazis bomb Coventry.

1941

Apr. 17—Yugoslavia surrenders; Gen. Mikhailović continues guerrilla warfare; Tito leads left-wing guerrillas.

Apr. 27—Nazi tanks enter Athens; remnants of British army quit Greece.

June 22—Hitler attacks Russia.

Aug. 14—Atlantic Charter: FDR and Churchill agree on war aims.

Dec. 7—Japan attacks Pearl Harbor, Philippines, Guam, forcing U. S. into war Dec. 8; Pacific Fleet crippled.

Dec. 8—U. S. and Britain declare war on Japan.

Dec. 11—Germany and Italy declare war on U. S.; Congress declares war on those countries.

1942

Feb. 15—British surrender Singapore.

Apr. 9—U. S. forces on Bataan surrender.

Nov. 8—U. S. and Britain land great army in French North Africa.

1943

Jan. 14-24—Casablanca Conference: Churchill and FDR agree on unconditional-surrender goal.

Feb. 1-2—German 6th Army surrenders at Stalingrad; turning point of war in Russia.

May 12—Remnants of Nazis trapped at Cape Bon, ending war in Africa.

June 10—FDR signs withholding tax.

July 25—Mussolini deposed; Badoglio is Premier.

Sept. 3—Allied troops land on Italian mainland.

Sept. 8—Italy surrenders.

Sept. 10—Nazis seize Rome.

Nov. 22-26—Cairo Conference: FDR, Churchill, Chiang-Kai-shek plan defeat of Japan, free Korea.

Nov. 28-Dec. 1—Teheran Conference: FDR, Churchill, Stalin agree on invasion plans.

1944

- July 20—Hitler wounded in bomb plot.
- Aug. 25—Paris liberated.
- Oct. 20—American troops invade Philippines.
- Dec. 16—Germans launch counteroffensive in Belgium (Battle of Bulge).

1945

- Feb. 11—Yalta Agreement signed by FDR, Churchill and Stalin.
- Apr. 12—FDR dies; Truman is President.
- May 1—Grand Adm. Karl Doenitz takes command in Germany; death of Hitler announced.
- May 2—Berlin falls.
- May 7—V-E Day: Germany signs unconditional surrender terms at Reims, France.
- July 17-Aug. 2—Potsdam Conference: Truman, Churchill (Attlee after July 28), Stalin establish council of foreign ministers to prepare peace treaties; plan German postwar government and reparations.

- Aug. 6—A-bomb blasts Hiroshima.
- Aug. 8—Russia declares war on Japan.
- Aug. 9—Nagasaki hit by A-bomb.
- Aug. 14—Japan surrenders.
- Sept. 2—Japanese sign surrender terms aboard battleship *Missouri* (V-J Day).
- Oct. 24—U. N. officially established.
- Nov. 15—Truman, Attlee and Mackenzie King decide in Washington Conference that A-bomb secrets will not be shared until U. N. adopts control plan.
- Dec. 27—Moscow Conference, attended by Byrnes, Molotov and Bevin, makes preliminary plans for atomic-energy control, peace treaties and Korea.

1946

- Jan. 10—1st meeting of U. N. General Assembly opens in London.
- Apr. 8-18—Final Assembly session at Geneva dissolves League of Nations.
- Apr. 29—U. S. proposes treaty with Britain, Russia and France to keep Germany disarmed 25 years; Russia cool to idea.
- May 31—U. S. and Britain demand free elections in Rumania.
- Oct. 1—Verdict in Nuremberg war trial: 12 Nazi leaders (including 1 tried in absentia) sentenced to hang; 7 imprisoned; 3 acquitted.
- Oct. 15—Goering commits suicide a few hours before 10 other Nazis are executed Oct. 16.

1947

- Jan. 28—U. S. rebukes Polish Communists for rigging election.
- Feb. 10—Peace treaties for Italy, Rumania, Bulgaria, Hungary, Finland signed in Paris.

- Mar. 4—Russia rejects U. S. plan for U. N. atomic-energy control.
- Mar. 12—Truman asks Congress for \$400 million to save Greece and Turkey from Communist expansion (Truman Doctrine).
- July 12-15—16 nations meet in Paris to study Marshall Plan (Russia and 8 others stay away).
- Aug. 1—Security Council calls on Dutch and Indonesians to cease hostilities.
- Aug. 15—India freed by Britain.
- Oct. 5—Moscow announces formation of new 9-nation Communist Information Bureau (Cominform).
- Nov. 14—General Assembly votes commission to set up free government for all of Korea.

1948

- Jan. 17—U. N. Good Offices Commission effects truce in Indonesia.
- Jan. 30—Gandhi assassinated.
- Feb. 23-25—Communists seize power in Czechoslovakia.
- Apr. 21—Security Council votes plebiscite in Kashmir to decide whether province goes to India or Pakistan; both sides object.
- May 14—Nation of Israel proclaimed; British end mandate at midnight; Arab armies attack.
- June 11—U. N. appeal brings temporary truce in Palestine.
- June 18—Russia stops traffic between Berlin and Western occupation zones in Germany.
- June 21—Berlin airlift begins; ends May 12, 1949.
- June 22—Russian veto prevents Security Council from approving atomic-control plan favored by majority.
- June 28—Stalin and Tito break.
- Aug. 15—Independent Republic of Korea is proclaimed, following election supervised by U. N.
- Nov. 4—General Assembly approves U. S.-sponsored atomic control plan.
- Nov. 12—Verdict in Japanese war trial: Tojo and 6 others sentenced to hang (hanged Dec. 23); 18 imprisoned.

1949

- Jan. 7—Cease-fire in Palestine.
- Jan. 20—Truman proposes Point 4 Program to help world's backward areas.
- Feb. 8—Cardinal Mindszenty sentenced in Hungary to life imprisonment.
- Feb. 24—Israel signs armistice with Egypt.
- Apr. 4—Start of NATO; treaty signed by 12 nations.
- May 11—U. N. admits Israel.

Sept. 21—German Federal Republic (West Germany) established.

Sept. 24—Truman discloses Russia has set off atomic explosion.

1950

Jan. 13—Russia boycotts Security Council (until Aug. 1) because Red China was refused admittance to U. N.

Jan. 31—Truman orders development of hydrogen bomb.

June 25—North Koreans cross 38th parallel to invade South Korea.

June 27—Truman orders U. S. air and sea aid to South Koreans.

June 27—Security Council (at that time boycotted by Russia) calls on U. N. members to help repel North Korean aggression.

Oct. 7—U. S. 1st Cavalry makes 1st U. S. crossing of 38th parallel.

Nov. 20—U. S. 7th Division unit reaches Manchurian border.

1951

Feb. 1—General Assembly condemns (44-7) Red China as an aggressor.

Mar. 19—6 nations initial Schuman Plan to pool European coal and steel market. (In effect Feb. 10, 1953.)

Apr. 11—Truman removes MacArthur from all commands.

June 23—Russia proposes truce.

July 10—Truce talks begin in Korea.

Sept. 8—Japanese peace treaty signed in San Francisco by 49 nations.

1952

Feb. 6—George VI dies; his daughter becomes Elizabeth II.

Feb. 20-25—NATO conference approves European Army; sets goal of 50 divisions and 4,000 planes by end of 1952.

May 26—Western Allies and West Germany sign peace contract at Bonn.

1953

Mar. 5—Stalin dies.

Mar. 6—Malenkov becomes Soviet Premier; Beria is Minister of Interior; Molotov is Foreign Minister.

Apr. 10—Dag Hammarskjöld begins term as U. N. Secretary General.

June 8—Agreement on POWs reached at Panmunjom; India to head 5-nation commission for custodianship of POWs refusing repatriation.

June 17—East Berliners rise against Communist rule; quelled by tanks.

June 18-21—Pres. Rhee frees 27,000 anti-Red POWs in defiance of U. N.-Red prisoner agreement; truce talks halted June 20.

July 10—Truce talks are resumed.

July 27—Korean armistice signed.

Aug. 20—Moscow announces explosion of hydrogen bomb.

1954

Jan. 21—1st atomic-powered submarine, *Nautilus*, launched at Groton, Conn.

Jan. 26—U. S. Senate ratifies (81-6) mutual security treaty with Republic of Korea.

May 7—Dienbienphu falls to Indo-China Red rebels.

July 21—Indo-China truce signed at Geneva conference; Reds get half of Vietnam.

Sept. 6—Eisenhower launches world atomic pool without Russia.

Sept. 8—8-nation Southeast Asia defense treaty signed at Manila.

Oct. 23—West Germany is granted sovereignty and is admitted to NATO and Western European Union.

1955

Jan. 17—Submarine *Nautilus* goes to sea under atomic power.

Apr. 5—Churchill resigns; Eden succeeds him Apr. 6.

Apr. 12—Scientists OK Salk vaccine.

May 31—Supreme Court leaves school desegregation to regional Federal courts.

July 16—Hungary releases Cardinal Mindszenty. (See Feb. 8, 1949.)

Sept. 19—Argentina ousts Perón.

Sept. 24—Pres. Eisenhower suffers coronary thrombosis in Denver.

Sept. 27—Egypt to buy Soviet arms.

1956

Feb. 22—U. S. releases 40,000 kg. of Uranium 235 (worth \$1 million) for peaceful atomic power at home and abroad.

Mar. 9—Archbishop Makarios of Cyprus is sent into exile by Britain.

Mar. 20—Khrushchev calls Stalin murderer. (Speech made Feb. 24.)

Apr. 7—Spain proclaims Spanish Morocco independent after 44 years.

May 21—First aerial H-bomb tested over Namu I., Bikini Atoll (10-million tons TNT equivalent).

June 9—Eisenhower undergoes operation to relieve blockage of small intestine due to ileitis; physicians say he will be physically fit to run for reelection.

June 12—Scientists report radiation is peril to future of race.

June 28-30—Workers' uprising against Communist rule in Poznan, Poland is crushed by tanks.

- July 19*—U. S. withdraws its offer to help Egypt build Aswan dam on Nile.
- July 26*—Egypt announces seizure of Suez Canal control.
- Sept. 29*—France and Germany agree that the Saar will return to Germany Jan. 1.
- Oct. 19*—Japan and Russia sign agreement ending technical state of war.
- Oct. 21*—Polish Communists restore Wladyslaw Gomulka to power, as party First Secretary.
- Oct. 24*—Soviet troops and tanks in Hungary fight anti-Communist rebellion, Imre Nagy is new premier.
- Oct. 26*—82 nations agree at U. N. on new International Atomic Energy Agency for peaceful use of atom. U. S. offers it 11,000 lb. of Uranium 235.
- Oct. 29*—Israel launches attack on Egypt's Sinai Peninsula and drives toward Suez Canal.
- Oct. 31*—British air attacks begin in Egypt.
- Nov. 4*—U. N. votes to organize its police force to restore peace to Egypt.
- Nov. 5*—British and French invade Egypt at Port Said.
- Nov. 6*—British, French cease fire at Port Said and halt Suez advance.
- Nov. 23*—Russians kidnap Hungary's Premier Imre Nagy and replace him with Janos Kadar.
- Dec. 12*—U. N. General Assembly condemns Russia for aggression in Hungary. Vote: 55 yes, 8 no, with 13 abstaining.
- Dec. 22*—Anglo-French forces withdraw from Egypt.

1957

- Jan. 5*—Eisenhower asks special joint session of Congress for power to use military and economic aid in Middle East—Eisenhower Doctrine.
- Jan. 9*—Prime Minister Anthony Eden resigns after only 21 months in office; succeeded by Harold Macmillan, Chancellor of Exchequer, on Jan. 10.
- Mar. 5*—Eisenhower Doctrine for Middle East passes Senate, 72-19; House completes Congressional approval, 350-60, on Mar. 7.
- Mar. 6*—New nation, Ghana, formerly British colony in Africa known as Gold Coast, attains full independence.
- June 24*—Scientists tell Eisenhower we now can produce nuclear weapons 95% free of radioactivity.

- Aug. 31*—Federation of Malaya comes into existence as newest free nation in world.
- Sept. 24*—Eisenhower sends Army troops to Little Rock, Ark., to quell mob and protect school integration.
- Nov. 3*—Soviet Russia launches earth satellite with dog in it.
- Nov. 26*—Eisenhower suffers slight stroke.

1958

- Jan. 31*—Army's Jupiter-C rocket fires first U. S. earth satellite, Explorer I, into orbit.
- Feb. 1*—Egypt and Syria merge into one nation—United Arab Republic.
- Mar. 27*—Khrushchev becomes Premier of Soviet Union as Bulganin resigns.
- Mar. 31*—Soviet government announces suspension of nuclear-weapons tests; demands U. S. and Britain also stop.
- June 1*—French National Assembly votes in Gen. Charles de Gaulle as Premier by 329-224.
- June 30*—Congress votes Alaska into Union as 49th state.
- July 14*—Pro-Nasser army officers shoot King Faisal of Iraq and seize rule, proclaiming republic.
- July 15*—Eisenhower orders U. S. Marines into Lebanon at request of Pres. Chamoun, who fears overthrow.
- Aug. 8*—U. S. atomic submarine *Nautilus* crosses top of world under North Pole.
- Aug. 22*—Eisenhower offers 1-year suspension of U. S. nuclear-arms tests.
- Sept. 12*—U. S. Supreme Court orders immediate racial integration in Little Rock high school; Gov. Faubus orders all 4 high schools closed.
- Sept. 22*—Sherman Adams resigns as Assistant to President, denying any wrong-doing.
- Oct. 9*—Pope Pius XII dies at 82.
- Oct. 28*—Cardinal Roncalli becomes Pope John XXIII.
- Nov. 4*—Democrats substantially increase their control of both houses of Congress.
- Dec. 1*—Fire kills 91 in Our Lady of the Angels School, Chicago.
- Dec. 18*—U. S. puts 5th earth satellite into orbit with 8,700-lb. Atlas missile.

(For later events, see pages 20-22.)

United Nations Costs

U. N. budget appropriations for 1959 were approved at \$60,802,120. Member states contribute on a scale determined by

the General Assembly. In 1958, the U. S. paid 32.51% of the cost, the U.S.S.R. paid 13.62% and the U. K. paid 7.62%.

SPACE AGE NEWS CHRONOLOGY

By

WILLY LEY

HIGH VERTICAL SHOTS AND LUNAR PROBES

Date	Place of firing	Purpose and results:
Feb. 24, 1949	White Sands Proving Ground, New Mexico	Two-stage rocket, V-2 plus WAC Corporal, first large two-stage rocket, to test separation in mid-flight. Fully successful, peak altitude of top stage 250 miles.
Winter, 1956-57	Cape Canaveral	Runaway X-17 three-stage solid fuel nose cone test rocket. Lost by trackers, calculation indicates peak altitude near 1,000 miles.
Sept.-Oct., 1957	Above Eniwetok, Pacific Ocean	Project Farside; Four-stage solid fuel rockets carried to over 80,000 ft. by plastic balloon. Six attempts, generally unsuccessful. Highest shot estimated at 3,000 miles (transmitter failed at 2,700 miles while rocket was still climbing).
Aug.-Sept. 1958	Above South Atlantic	Project Argus, using modified X-17 rockets. Three shots, exploding small nuclear bombs 300 miles above sea level.
Aug. 27, 1958	Kyzyl Kum Desert	Russian research rocket, carrying 3,726.45 lbs. to 279.6 miles. Two dogs in payload, recovered alive.
Oct. 11, 1958	Cape Canaveral	Pioneer I, lunar probe. Reached maximum altitude of 71,300 miles. Re-entered atmosphere over South Pacific 43 hours and 17.5 min. after take-off.
Nov. 8, 1958	Cape Canaveral	Pioneer II, lunar probe. Third stage failed to ignite, re-entered 42.4 minutes after take-off. Peak altitude not announced, must have been over 1,000 miles.
Dec. 6, 1958	Cape Canaveral	Pioneer III, lunar probe. Reached maximum altitude of 66,654 miles. Discovered outer Van Allen layer. Burn-up over French Equatorial Africa 38 hours and 6 minutes after take-off.

Date	Place of firing	Purpose and results:
Jan. 2, 1959	Kyzyl Kum Desert	Russian lunar probe Metchta ("Day-dream"). Missed moon by 4,500 miles, now in orbit around sun with orbital period of ca. 15 months. Weight 3,245 lbs.
March 3, 1959	Cape Canaveral	Pioneer IV, lunar probe, passed moon at a distance of 37,300 miles on March 4, 1959. Now in orbit around sun. Weight 13.4 lbs.
June, 1959	Wallops Island	NASA six-stage solid fuel rocket reached 200 + miles.
June (?), 1959	Woomera, Australia	British Black Knight rocket carried nose cone to 300 miles. Details, even precise date, were kept secret.
July 2, 1959	Kyzyl Kum Desert	Single stage liquid fuel Russian research rocket carried 4,400 pounds of payload to above 200 miles: In payload two dogs and young hare. Recovered alive and healthy.
Sept. 12, 1959	Kyzyl Kum Desert	Russian lunar probe, weighing 860 lbs. Impact on moon near <i>Mare serenity</i> 35 hours after take-off.

ARTIFICIAL SATELLITES

Name	Firing Date	First perigee (miles)	First apogee (miles)	Orbital period (minutes)	Satellite weight (pounds)	Total weight in orbit (pounds)	Lifetime terminated
Sputnik I	Oct. 4, 1957	142	588	96.17	183.6	ca. 8000	Jan. 4, 1958
Sputnik II	Nov. 3, 1957	140	1038	103.7	1120	ca. 9000	Apr. 14, 1958
Explorer I	Jan. 31, 1958	224	1573	114.8	18.13	30.8	Another 5 years
Vanguard I	Mar. 17, 1958	409	2453	134.3	3.25	53.25	Another 400 years
Explorer III	Mar. 26, 1958	121	1746	115.87	18.56	31	June 27, 1958
Sputnik III	May 15, 1958	135	1167	106	2925	8000+	Expected Dec., 1959, or Jan., 1960
Explorer IV	July 26, 1958	163	1380	110.27	25.8	38.4	Expected Summer, 1960
Score (Atlas)	Dec. 18, 1958	110	920	101.46	150	8750	Jan. 21, 1959
Vanguard II	Feb. 17, 1959	347	2064	125.85	20.74	70.74	Another 40 years
Discoverer I	Feb. 28, 1959	99	605	95.9	245	1300	March 5, 1959
Discoverer II	Apr. 13, 1959	142	220	90.5	245	1610	Burn-up not observed
Explorer VI	Aug. 7, 1959	157	26,400	12 h. 46 m.	142	....	At least one year
Discoverer V	Aug. 13, 1959	150	450	ca. 95	450	1700	In 1959
Discoverer VI	Aug. 19, 1959	138	537	ca. 100	450	1700	In 1959
Vanguard III	Sept. 18, 1959	319	2329	135	50	100	Another 40 years
Cosmic Rocket III	Oct. 3, 1959	24,840	291,870	15 days	613	?	Indeterminate

Sputnik I. Top stage of rocket suffered burn-up during first week of December, 1957.

Sputnik II. Carried dog Laika, killed after nearly 100 hours in orbit.

Explorer I. Discovered the (inner) radiation belt or Van Allen layer.

Vanguard I. Powered by solar batteries, enabled geophysicists to determine precise shape of the earth.

Explorer III. Contributed to knowledge of radiation in space.

Sputnik III. Heaviest artificial satellite so far.

Explorer IV. Most successful Explorer satellite, contributed to evaluation of Project Argus.

Score. Whole Atlas missile without booster in orbit. Broadcast messages from space.

Vanguard II. The so-called cloud cover satellite.

Discoverer I. Orbited, but not successful, tumbled, lasted only 5 days. First satellite in a polar orbit.

Discoverer II. Ejected capsule to be recovered, but ejection took place over Spitsbergen instead of over Hawaii.

Explorer VI. The so-called paddlewheel satellite.

Discoverer V and VI. Both ejected their capsules back into atmosphere, but in both cases transmitter in capsule failed to broadcast so that capsules could not be found.

Vanguard III. The so-called icecream cone, last of the Vanguard shots.

POLITICAL GUIDE

1960 PRESIDENTIAL ELECTION



Edited by

DAN GOLENPAUL

Assisted by the Staff of the

INFORMATION PLEASE ALMANAC

In consultation with the Editorial Staff of the

WASHINGTON EVENING STAR

and

WORLD BOOK ENCYCLOPEDIA

Opinions expressed by the various contributors are not necessarily the opinions of the Information Please Almanac Staff or of the consulting groups.



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LAWS, BILLS, AND TREATIES—PLUS ELECTION TABLES

COMMENTS ON THE POLITICAL SCENE

By DAN GOLENPAUL

In the 1948 edition of the *INFORMATION PLEASE ALMANAC* we initiated our policy of preparing a political guide for the voters of the United States. Among the many contributors to the 1948 guide were the late Thomas L. Stokes and the late Mark Sullivan, two of America's most distinguished journalists and political analysts of the time. They discussed the campaigns and administrations from 1900 to 1944.

Although both Mr. Stokes and Mr. Sullivan would vigorously deny any partisan identification with either party, as a friend of both gentlemen it is difficult to imagine Tom Stokes supporting Coolidge and Hoover, or Mark Sullivan supporting Roosevelt and Truman.

We reprint part of the material by Sullivan and Stokes in this 1960 edition because of its excellence and historical character. However, since this material was written originally for our 1948 edition, it does not go beyond 1944. We have, therefore, invited one of America's most important political writers, William S. White, to join the discussion and cover 1948, 1952, and 1956. You should find reading their comments interesting and informative because they give you a dramatic picture of our political history, and place both the campaigns and administrations in their proper focus for voters.

It is particularly interesting to read Mr. Stokes's and Mr. Sullivan's observations about the election of 1932. Twenty-seven years have elapsed, and it is significant to appraise the policies of both Hoover and Roosevelt in the light of history and the present state of the nation. This aspect is mentioned by Professor Henry Steele Commager in his piece on "Major Issues of the 20th Century and Probable Issues for 1960," on page 34. I agree with Professor Commager that very few people would be willing to give up bank insurance, Social Security, unemployment insurance, and many other measures of the Roosevelt administration.

Professor Commager speculates on what some of the major issues may be in the 1960 campaign—namely, that unless something unforeseen occurs between now and November, 1960, the Republican Party will run on a platform of peace and prosperity. I agree with the correctness of this assumption by Professor Commager, as well as with his opinion that it's hard to conceive or prove that either party is not for peace. Let us consider, for instance, whether the United States would or would not have become involved in World War I if Charles Evans Hughes had been elected in 1916, in World War II if Wendell Willkie had been elected in 1940, and in the Korean War if Thomas Dewey had been elected in 1948.

My guess is that all three gentlemen probably would have done exactly what Wilson and Roosevelt and Truman did. Whatever action occurred to bring about these wars was dictated by our national interest.

The basis for the probability that the Republican Party will lean very heavily on the peace issue is the visit of Khrushchev to the United States and the future visit of Eisenhower to Russia, to be followed by a Summit Conference. If the cause of peace will be helped by melting the Cold War tensions, then the present course of the Administration is certainly right. Therefore, is it not pertinent to ask if Dulles's seven-year policy toward a Summit Conference was wrong?

I submit these questions primarily to take the whole discussion out of partisan politics, and to stir the reader's thinking about any party's exclusive claim to be a "peace party."

I think most of us would like to see the peace issue taken out of politics, and give both parties and all politicians the benefit of wanting and working for peace.

The issue of prosperity must also be closely examined. Maybe some policies of one party or another may contribute to the prosperity of a nation, but the primary basis of prosperity in our economy is largely due to the ingenuity and resourcefulness of American industry, both management and workers.

The whole field of economics is so complicated that we have called upon outstanding authorities to help us, and we have two articles on inflation, one by Mr. Leon H. Keyserling, who was Economic Advisor to the Truman administration, and an article by Mr. William McChesney Martin, Jr., Chairman of the Board of Governors of the Federal Reserve System. We commend these articles to our readers.

Both parties will make many claims in the 1960 campaign. We have, therefore, invited both Senator Mike Mansfield and Senator Everett M. Dirksen to set forth for our readers the record of both parties in the 86th Congress. We have also asked Senator Joseph S. Clark, Jr. of Pennsylvania and Senator George D. Aiken of Vermont to give us their views of the achievements and failures of the 86th Congress.

When you study the records of both parties, you may find a very small margin of difference. This is particularly true of the 86th Congress, where many of the bills were the result of compromise or accommodation. Most decisions were made by a coalition of Democrats and Republicans.

We offer an analysis of the coalition activities by Mr. Charles Seib, the National News Editor of *The Washington Evening Star*. This story is fairly well known to most of our readers. The actual performance of the coalition has important implications for the political future of the nation. On the basis of the voting record of both parties it is hard to define what a Democrat or a Republican means. A Democrat means one thing in Pennsylvania, and another thing in Mississippi.

Some people of the nation may consider this coalition, or merging of parties on certain issues, a meeting of the minds. I am not suggesting that we are approaching a period in the country of a one-party system, but it seems to me that we may be building up a serious point of frustration on issues. If we are not exposed to political differences of opinion we may become smug and soft and lose our vitality.

If the people are losing interest in issues—in policies—they may be depending too much upon the images of popular political figures. The response of the people to the image is not limited to politics. It is pervading most segments of our life. The era of images is probably due to the fact that the people are tired of the strain of two wars and the sustained Cold War, and they may find it easy to look towards an image that gives them a sense of assurance and a more relaxed way of life.

The image is not exactly a new thing in American politics. Our Presidents have been characterized as the “great white fathers,” but in most instances it has had a different connotation. The image of Roosevelt was associated with certain policies and leadership, just as the image of Churchill is associated with a certain type of leadership. In other words, the identity of an image came after their records of achievement or failure.

In 1960 the woods will be full of images. If you look at the list of candidates that we cover in our “Biographies of the Probable Candidates,” you will find many pleasant images. It would be curious to speculate on how Abraham Lincoln would go over with the voters who are looking for a glamorous image.

I do not offer this analysis in any facetious mood. I honestly fear that it is becoming a fixture in the American political scene. I, for one, deplore it because in the face of great world crises we need to be more concerned with issues and ideas than with pleasant countenances.

I firmly believe that the strength of our nation depends upon the willingness and ability of the people to evaluate issues and make decisions. The decisions of the voters are usually very sound, and very often ahead of the parties or governments. I will not suggest what issues the people should be exposed to; I am concerned first with the growing frustration of the voters and parties. It is time that we took a good look at how our Democracy works in our nation.

I should like to set forth some suggestions for changes that I think would strengthen the democratic processes in our political system. Please don't think I'm launching a crusade. I'm not. I'm merely throwing out some thought to be battled around in discussion.

1. The Electoral College has lost its original purpose and meaning completely. It actually holds dangers in the present day. A group of Southern states can throw over the regular party nominees and put up their own candidates and maneuver them into a block of the Electoral College vote, regardless of what the Southern voters themselves think about it. They have done so in the past, and they could do so again, and there always is the possibility that the Southern electoral revolters could force the election into Congress for a decision as to who will be President and Vice President. This conceivably could be in utter defiance of the will of the people, and could plunge our country into political chaos.

Why would it not be a good idea to give a clear path to the will of the nation's voters? I believe the popular vote for President and Vice President should determine their election.

2. We are continually plagued by political divisions within the governing set-up—for example, now, when the Presidency is Republican and the Con-

gress is Democrat-controlled. Mainly this is caused by scattering our election days around. Why not elect the President and Senators and Congressmen all in the same year and for the same length of time—four years? This would do away with so-called “off-year” elections, and probably would end the mid-term divisions of authority which tend to muddle our governmental affairs.

3. Sectionalism probably is inevitable in American politics—Southern blocs, farm blocs, etc. Sometimes, as minorities, they impose their will on all of us. This is particularly true in the seniority rule that governs Congressional committee chairmanships. Chairmen are chosen because they are old-timers, not because they are leaders in touch with the times. Frequently they can and do block legislation which the majority wants. Why not let a touch of the merit system into the darkness of the Congressional committees?

4. Many Senators already realize that we need intelligent control of the filibuster—the practice of killing bills by unlimited talk. Attempts to correct this practice have been blocked by conservative Southern Senators who often gain their ends that way. Do we not need an energetic group of Senators who will plug away at the filibuster rule that thwarts majorities?

My belief is that reforms such as these—which are not radical nor necessarily unattainable—will improve our democratic processes so that the government better expresses the will of the people.

MAJOR ISSUES OF THE 20TH CENTURY AND PROBABLE ISSUES FOR 1960

By HENRY STEELE COMMAGER

Professor of History, Amherst College, Adjunct Professor of History, Columbia University

THE BACKGROUND: Two major issues have dominated American political history throughout the twentieth century. The first has been primarily domestic: the issue of the role of government—state and federal alike—in the economy. The second has been primarily in the realm of foreign affairs: the issue of the extent and nature of American participation in world affairs.

During most of the nineteenth century, government and the economy operated in separate compartments. Where government did concern itself with the economic or social affairs of the people, it was largely local government—in maintaining schools, for example, or in building and clearing roads. For the most part government did not intervene in industry, in labor and its relations to industry, in commerce and trade; even in the realm of finance intervention was held to a minimum. But with the coming of the industrial revolution, the rise of cities, the growth of giant corporations operating across state lines, government was called upon to intervene as a regulatory agency. Beginning with the railroad regulation of the 1870's many States extended

some degree of supervision over commerce and industry; beginning with the Interstate Commerce Act of 1887 the national government began to play a more active role in supervising and regulating the economy.

Gradually, and then after 1933 with mounting speed, governments, both state and national, shifted their activities from what might be called negative to what might be called positive controls. Not content with acting as an umpire in the conflict of interests between various groups, government began to assume responsibility of a much broader and more constructive character. It moved into the broad arenas of labor, social security, conservation, agricultural aid, hydroelectric power, public health, housing, science and education, and related fields. In all this, needless to say, it was only doing what most European governments had long been doing; the growth of governmental authority and of centralization are not local but worldwide developments. By the 1930's the welfare state was well on the way; by the 1950's—whatever the misgivings about the phrase itself—it had been accepted by both of the major parties and by the great majority of the American people. Two large and vital questions, however, remained to perplex and to divide opinion. Just how far could the state go in providing for the general welfare, without impairing the liberties of men or discouraging that private initiative so important to our society? And which government was best fitted to advance the general welfare—the national or the state?

The second major issue of the last two generations—that of the nature and extent of America's responsibilities in world affairs, emerged rather dramatically in the late nineties and the early years of the century. During most of the nineteenth century the United States enjoyed substantial isolation from the political affairs of the Old World, while the affairs of Asia scarcely impinged on the American consciousness. In the decade of the nineties this isolation was abruptly ended. The acquisition of Hawaii, and of the Philippines, and the announcement of the Open Door policy in China inevitably involved the nation deeply in the affairs of the Pacific and of eastern Asia. The Spanish War, the acquisition of Caribbean islands and naval bases, the building of the Panama Canal, the growth of the Navy with a need for naval stations—these things involved us deeply in the affairs not only of the Americas but of Europe as well. To President Theodore Roosevelt this was as it should be; he thought the time more than overdue when the United States should assert its position as a world power, and make its voice felt in world affairs.

It was, of course, the first World War that swept the United States into the swift and turbulent currents of world affairs. President Wilson tried his best—for a short time at least—to preserve American neutrality, but in vain. Once in, the United States tipped the balance in favor of the Allied powers, and she found herself after the war the most powerful of world nations. Yet disillusioned and fearful, Americans repudiated the League of Nations which Wilson had done so much to create, and withdrew into a sullen isolation. Or at least they tried to. Actually even during the decade of the twenties this country was deeply involved in world affairs—as banker, for example; as the

spokesman for much of the western Hemisphere; and as a somewhat reluctant but very real Pacific power.

It was the rise of totalitarianism, and the outbreak of revolution and war in Europe and Africa, and in Asia, that plunged the United States most deeply into isolationism. Determined not to be involved again in the "broils" of the Old World, Congress enacted a body of so-called Neutrality legislation designed to make of America a

"fortress built by Nature for herself
Against infection and the hand of war."

The Neutrality legislation proved about as effective as King Canute's commands to the tides. Within a few years the United States was swept into what had become a world war; after Pearl Harbor she came to play the decisive role in that war. She emerged as the most powerful of world nations and the one on whom, therefore, inevitably rested most heavy responsibilities.

After World War I it was possible—though not profitable—to withdraw from European affairs; after World War II it was not possible. The United States actually took the initiative in setting up a new international order, and it was eminently appropriate that the United Nations headquarters should be fixed in New York City.

In a very real sense, then, the two major issues of the twentieth century have been settled. The welfare state is with us, and it is no more possible to return to the principles and practices of laissez-faire than it is to unscramble eggs and return them to their shells. America is a world power, with obligations and responsibilities to almost every quarter of the globe, and it is no more possible to reverse that development than it would be to reverse time.

The questions, then, whether government *should* take responsibility for the economy, whether the nation *should* fulfill its international obligations, are no longer of any political importance. But there is plenty of room within this broad framework of agreement for the sharpest kind of disagreement. The political issues that confront us now—for this coming election, and for some elections to come—have to do with meaningful choices of policy and program. Just how far is government to go in supervision of the economy? What segments of the economy or of society require immediate consideration, and in what form and to what degree? What areas of economic and social life are beyond the reach of government, and how are the barriers against governmental invasion to be maintained? What particular programs should government undertake? How are we to finance the cost of these programs? Which government is best fitted to perform particular tasks—the federal or the state? So, too, in the realm of foreign policy there are many and significant differences of purpose and of opinion. Should the United States continue to operate within the United Nations, or should it operate on a great-power basis with a few other great powers? Should it continue its program of foreign aid; should that aid be primarily military or economic; and how is it to be financed? What should be our policy towards Communist Russia; the

satellite countries; the occupied countries; Nationalist China and Communist China? What are our obligations in the Middle East? in Africa? in South America? These broad questions can be broken down, in turn, into questions of specific policy—the policy towards West Berlin, for example, or towards the relations of France and Algiers.

Against this background let us look at some of the issues of the Presidential and Congressional campaign of 1960. Some of these issues are so urgent that they are unavoidable; others will doubtless be avoided.

First, then, for the domestic scene:

1. FINANCES. What this means, for political purposes, is balancing the budget and slowing up or stopping inflation. The Republican party missed by some twelve billion dollars balancing the last budget, but has made budget balancing a matter of top priority for this year and the next. The Republicans prefer to balance the budget by cutting back on current—or potential—expenditures, and to stop inflation by holding the line on prices and wages. The alternatives—to balance the budget by such an increase in business as will swell tax revenues, or to stop inflation by rigorously taxing away surplus money—have not found favor with them. Nor, for that matter, have they found much favor with the Democratic party. The Democrats, however, conscious of their respectable record of the Truman administration in balancing its budgets, are less interested in cutting expenditures than they are in meeting the mounting demands for governmental services. They are more inclined to trust that the increase in national income and product will take care of increased costs. They are less concerned with—or frightened by—inflation, and more inclined to control inflation not so much by economies as by taxation or a more vigorous control of credit.

2. PUBLIC WORKS. This issue is, of course, closely connected with the issue of the budget, with taxation and inflation. Almost everybody is in favor of public works of some kind, and most Congressmen are very strong for public works that will benefit their own state. It is possible however, on the basis of experience of the past three years, to see some difference here in party attitude. Under the prodding of President Eisenhower the Republicans—with some Democratic aid—have been inclined to soft peddle expensive public works programs—slum clearance and housing, public health, education, and roads. The Democrats on the other hand, traditionally in favor of such programs, have tended to support larger appropriations for these purposes. To some extent the cost of public works programs is a function of bookkeeping. A budget that distinguished between current expenditures and capital investments—perhaps a double budget—would make it much easier to balance the current budget and might make it easier to win support for long-range investments. As yet, however, neither party seems prepared to back such a bookkeeping reform.

3. AGRICULTURE. No issue is more controversial, or more complex, than that having to do with proper farm policies. The system of subsidies to major crops was inaugurated by the Democrats; somewhat unwillingly it has been retained by the Republicans. Secretary Benson would unquestionably

like to modify or abandon this program, but so drastic a change in policy would be both economically and politically unwise. There is some reason to believe that the Democratic party is moving towards the once-rejected Brannan Plan. It is inconceivable that either party would adopt a program which would forfeit farm support, but it is possible that a program looking to the elimination of costly warehousing of surplus grains (warehousing costs run to two million dollars or more a day) might win sufficient approval to make it as feasible politically as it is economically. The solution of the agricultural surplus problem is complicated by the fact that outside the South the farmers are the staunchest supporters of the Republican party.

4. LABOR. From 1930 to 1948 the Democratic party appeared to be the champion of the interests of organized labor. During these years the Democratic administrations enacted an impressive body of legislation that found favor with labor: the Norris-LaGuardia anti-Injunction Act, the Wagner Labor Act, the Fair Labor Standards Act, Social Security, Home Owners Loan acts, Bank deposit guarantees, and others. The Republican party, on the other hand, sponsored the Taft-Hartley Act which Mr. Truman vetoed.

Yet in 1952 and 1956, organized labor seemed to be pretty evenly divided in its loyalties. Whatever labor leaders might profess, the rank and file of labor voted—as far as we can tell—about equally for Eisenhower and Stevenson. Events of the last two or three years, however, have gone far to abate labor's honeymoon with the Republican party. The efforts to "clean up" the unions have been interpreted as hostility to labor generally; slow but steady inflation has left labor feeling that its gains are nominal rather than real, the reluctance of the administration to support programs of public housing and of school building has seemed to show a lack of enthusiasm for the interests of the common man; and finally, the invocation of the Taft-Hartley Act in the bitterly-fought steel strike of 1959-60 has deeply antagonized labor spokesmen and perhaps, too, the rank and file of the unions.

5. CIVIL RIGHTS—which means chiefly the rights of Negroes in the South—should be an issue, but the parties may well succeed in avoiding or evading it. Here the Democrat party is notoriously split, the northern wing prepared (though not enthusiastically) to press for further actualization of the rights guaranteed the Negro in the 14th and 15th amendmnets; the Southern wing prepared (though not very happily) to resist anything but the most gradual progress in this direction. One advantage that the Republican party should draw from its lack of strength in the South is the ability to hew to the line of principle, letting the chips fall where they may. So far, however, the Republicans have failed to capitalize on this advantage, whether out of desire to placate the Eisenhower Democrats who in 1956 carried the states of Texas, Florida, Virginia, Louisiana, Kentucky, Maryland, and Tennessee, or out of a genuine reluctance to intervene in what they regard as the realm of the states, is not clear.

Turn, then, to the realm of Foreign Policy:

There are many genuine and deep issues in the realm of foreign policy, but few that lend themselves to party differences or to the exigencies of political

campaigns. Long out of office, the Republicans were able to dramatize and capitalize on some issues of foreign policy in 1952. Power makes for responsibility, and it is unlikely that they will view foreign policy in quite so naive a fashion in 1960. The major differences over foreign policy are not between the parties, but within the parties. Yet, clearly neither party can avoid this vast and insistent body of issues. Let us look at some of them, and at possible party attitudes.

1. **PEACE.** In 1952, General Eisenhower, by promising to go personally to Korea to arrange an armistice, not only captured the imagination of the people, but managed to identify the Republican party with peace. Notwithstanding ardent hostility to Communist Russia, a readiness to fight for the off-shore islands between Formosa and the mainland of China, and various other near-involvements, the Republicans have continued to claim to be the party of peace. The recent visits of Khrushchev to the United States and of Nixon to Russia, and the consequent cooling off of the cold war, have greatly strengthened the Republican position here. There is every reason to suppose that the party will capitalize on its avoidance of major war, and on the ability of President Eisenhower to create friendliness and to abate overt hostility throughout the world. The Democrats will be in a quandary when it comes to meeting this issue. No one, after all, is against peace. The Democrats will have a choice of four arguments: a) that the temporary peace is not genuine but 'phoney' and that any relaxation of defense is perilous; b) that the administration itself created most of the crises which it now takes credit for avoiding or surmounting; c) that the various policies which now appear to be relaxing tensions throughout the globe were originally Democratic policies anyway; and d) that the Democrats are, in any event, more experienced and skillful in the realm of foreign affairs than the Republican party. If peace continues, and with it a genuine abatement of tensions, it is hard to see how these counter-arguments can be expected to have any influence.

2. **ATOMIC WEAPONS.** Here again there is no clear party division—any more than there was a clear party division in England in the election of 1959. In the 1956 campaign, Gov. Stevenson urged the cessation of nuclear experiments. That proposal was rejected at the time as dangerous if not unreasonable, but now the Eisenhower administration has itself undertaken to suspend such experiments. Thus, this major issue is, temporarily at least, removed from the realm of party controversy. Nor can there well be any real party differences over other aspects of the atomic program—support to our Allies, for example, or the use of atomic energy for peaceful purposes.

3. **MILITARY POLICY.** This term covers a multitude of possibilities, but for purposes of practical political debate, it probably boils down to two issues: the amount of money made available to the Pentagon, and the allocation of that money within the various offices of the Pentagon. One school of thought, more vocal perhaps in the Democratic party—blames Russian superiority in missiles and other military weapons on Congressional parsimoniousness, and calls loudly for increased appropriations to the military. Just how

these appropriations are to be allocated is, too, a matter of controversy, but it is not one that seems likely to fall into a party pattern.

4. GERMANY, CHINA, MIDDLE EAST. There are sharp differences of international opinion over the West's responsibilities and strategy regarding West Berlin and West Germany. How far are we prepared to go to keep Germany in NATO? Regarding China, both parties seem committed to the defense of Formosa. In the Middle East, to what extent will we go to aid Israel against Arab harassment? Eventually, Germany, China, and Israel all will become major issues of American policy. In the 1960 campaign, however, it does not seem likely that they will be made the subject of party controversy.

5. FOREIGN AID. It is highly probable that both parties will endorse a continuation of our current foreign aid program. That has been going on now since 1948, and has come to be accepted as a normal operation. The major question in relation to this program is one that might well divide the parties: whether foreign aid should be primarily military or primarily economic. When the Marshall Plan was launched in 1948, the emphasis was overwhelmingly on economic and social reconstruction. The assumption was that if the nations of western Europe could be put back on their feet, they would be able to maintain themselves, and would not succumb to Communist pressure from within or without. That assumption proved valid. Nevertheless, as Marshall aid gave way to the Mutual Security Program, NATO, Technical Aid, and others, there was a corresponding shift from economic to military support: in 1957, for example, only a little over one-tenth of foreign aid appropriation was for strictly economic purposes. While it is difficult to discern a party pattern in this issue, on the whole the Democratic party, while in office, preferred economic to military aid; it is the Republican party that has reversed this order.

PROBABLE CANDIDATES AND TICKETS

Prepared by INFORMATION PLEASE ALMANAC STAFF

We have included in this Guide biographies of probable candidates for President and Vice President. We exercised our own guesswork in selecting individuals who are generally regarded as possible candidates. It is not unlikely that we have omitted someone who will emerge as a dark horse. Anything is likely to happen in a stalemated convention or in a smoke-filled room.

Politics are charged with speculation and uncertainty, and we thought it would be interesting to speculate not only on the candidates, but also on various groups of running mates. We would not want to be taken too seriously because we are not in the habit of crystal-ball gazing. We thought it might be a good indoor sport if we suggested a series of possible tickets among the individuals we have included in our biographical section. If any of the combinations on the list emerge as the ticket for either party—don't blame us. We were only fooling.

We would like to take this opportunity to say that one of the healthy signs in the current political scene is the general acceptance of several likely candidates of the Catholic faith. I think we ought to go beyond this and I am sure

that we will in time. It has always been shocking to me that, in all the years of their wonderful service to the country, neither Herbert Lehman nor Bernard Baruch was ever mentioned as a possible presidential candidate.

Many factors govern the selection of candidates: group association, geographic considerations, ideological identification, and, of course, specific and general vote-getting potential. We are, therefore, proposing a series of possible tickets with these factors in mind. The combination of candidates is headed by Stevenson and Kennedy for the Democrats, and Dewey and Nixon for the Republicans. Mr. Stevenson and Mr. Dewey are probably the best-qualified candidates on the basis of ability, experience, and leadership. They both lost twice and although the tradition is strong against nominating two-time losers, this tradition would be nullified if they opposed each other. The other tickets listed are offered without any comment. Since the Democrats seem to have more candidates than the Republicans, our proposals for Democratic tickets are greater than the number of Republicans.

DEMOCRATS

Adlai Stevenson, Illinois
John F. Kennedy, Massachusetts
John F. Kennedy, Massachusetts
Stuart Symington, Missouri
Edmund G. Brown, California
Robert B. Meyner, New Jersey
Stuart Symington, Missouri
Joseph S. Clark, Jr., Pennsylvania

REPUBLICANS

Thomas E. Dewey, New York
Richard M. Nixon, California
Nelson A. Rockefeller, New York
Charles A. Halleck, Indiana
Richard M. Nixon, California
Henry Cabot Lodge, Jr., Massachusetts
Richard M. Nixon, California
Hugh Scott, Pennsylvania

Additional Democratic Slates

G. Mennen Williams, Michigan
Joseph S. Clark, Jr., Pennsylvania
Lyndon B. Johnson, Texas
John F. Kennedy, Massachusetts
John F. Kennedy, Massachusetts
Henry Jackson, Washington

Lyndon B. Johnson, Texas
Hubert H. Humphrey, Minnesota
Hubert H. Humphrey, Minnesota
John F. Kennedy, Massachusetts
Robert B. Meyner, New Jersey
Mike Mansfield, Montana

BIOGRAPHIES OF PROBABLE CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Prepared by INFORMATION PLEASE ALMANAC STAFF

EDMUND G. BROWN

(Born: San Francisco, Apr. 21, 1905)

Gov. Edmund G. (Pat) Brown became an important Democratic "dark horse" in Nov., 1958, when he trounced William F. Knowland, the ex-leader of the Senate Republican minority, to take the California governorship by a margin of more than one million votes.

A large man both physically and politically, he added to his stature by his

record as Governor. He held firm control of the state legislature and scored two notable victories—working out a compromise of the controversial water resources development program and enacting an effective fair employment practices law. On major issues, he had scored 35 victories and five defeats by midsummer of 1959.

Once regarded as easy-going, Gov. Brown is now viewed as a decision-maker. One decision is that he doesn't want the party's vice-presidential nomination. He is a Roman Catholic, and this fact could put him into direct competition with Sen. John Kennedy, the Massachusetts Catholic, who also aims for the top spot on the national ticket.

"Pat" Brown picked up his nickname in his native San Francisco when, as a schoolboy orator, he quoted Patrick Henry. He was graduated from law school there, went into politics as a Republican, and switched to the Democrats in 1934. He became San Francisco district attorney and state attorney general after losing his first try for both jobs.

A stocky, affable man with thinning black hair, he finds politics a congenial medium. He is a direct platform speaker, has a clean political record, and tends to be a middle-of-the-roader on public issues.

His wife is an Episcopalian. They have three daughters and a son. Now 54, Pat Brown is certain to figure in the vote-trading when the Democrats come to Los Angeles for their 1960 national convention.

JOSEPH S. CLARK, JR.

(Born: Philadelphia, Oct. 21, 1901)

Sen. Joseph S. Clark of Pennsylvania, a wealthy Philadelphia Democrat who was elected to the Senate in 1956, is one of the small group of party dissidents who have attacked the leadership of Senate Majority Leader Lyndon B. Johnson.

Like many members of the party's National Committee, Sen. Clark feels that Sen. Johnson is favoring conservative Southerners over the younger Democratic liberals, ignoring the majority views of other Senate Democrats.

Sen. Clark has, in fact, been a potential presidential choice since 1951, when he swamped the entrenched Republicans to become Philadelphia's first Democratic Mayor in sixty-seven years. In 1956, when President Eisenhower carried Pennsylvania by a wide margin, Mr. Clark defeated Sen. James Duff, for whom the President had campaigned.

Sen. Clark is a small, wiry man with a quiet manner and a lively social conscience. His parents were rich, and he enjoyed a very secure childhood. He was graduated from Harvard with high honors and studied law at the University of Pennsylvania. He said that he had decided to be a senator when he was 14 years old, and he has a hard-driving way of working toward his objectives.

Born a Republican, Sen. Clark switched to the Democrats in 1928. He was beaten in his first try in politics, when he sought election to the Philadelphia City Council in 1934. He served with the Air Force in World War II and returned to politics after the war, winning election as city controller

in 1949. As Mayor, he smashed the corrupt Republican machine, assigned city jobs on merit, enraged some of the disappointed spoilsmen of his own party, and made a first-rate record.

In the Senate, he favored more public housing than the Eisenhower Administration and called for tightening of tax laws to balance the national budget.

His first marriage ended in divorce. He and his present wife, the former Noel Hall, whom he married in 1935, have a son and a daughter.

THOMAS E. DEWEY

(Born: Owosso, Mich., Mar. 24, 1902)

Thomas E. Dewey shares with Adlai E. Stevenson the unhappy distinction of being twice beaten for the Presidency, but he remains a politician of great power in the Republican party.

The former New York Governor's name has not been seriously proposed for the 1960 nomination, and Mr. Dewey, a prosperous corporation attorney, has given no outward sign that he still wants the post.

In 1956, Mr. Dewey threw his support to Vice President Nixon for the second spot on the ticket. He was seldom heard during Gov. Rockefeller's campaign for the New York governorship in 1958, but he has never shown any reluctance toward Rockefeller. His choice between Nixon and Rockefeller, to the public at least, is unknown.

In the event of a Rockefeller-Nixon deadlock at the 1960 convention, Mr. Dewey's name may re-emerge as a compromise choice.

As New York's Governor, he enjoyed a reputation as a brilliant, honest administrator. He was one of the best political speakers in the country and a former district attorney who had made himself famous by his war on organized crime.

Ever since his school days in Owosso, Mich., Tom Dewey had been known as the brightest boy in school. It was the same at the University of Michigan, and when he studied at the law school of Columbia University.

In 1944, he collided with Franklin D. Roosevelt and was badly beaten in the presidential election. In 1948, against Harry S. Truman, he appeared to be a shoo-in until the last possible moment. Nevertheless, President Truman defeated him, despite a Dixiecrat split and the defection of Henry Wallace's Progressives.

Still a compactly built, black-haired man at 57, Mr. Dewey is an important but unofficial adviser of President Eisenhower and moral leader of the Eastern or "liberal" wing of his party.

CHARLES A. HALLECK

(Born: De Motte, Ind., Aug. 22, 1900)

Rep. Charles A. Halleck of Indiana, a short, tough, blue-eyed political battler from northwest Indiana, has been a power among conservative Republicans since he entered Congress in 1935, but his greatest influence has

come since he wrested the House minority leadership from Rep. Joseph W. Martin of Massachusetts in January, 1959.

After assuming the minority leadership, Rep. Halleck kept in the closest touch with President Eisenhower, persuading him to exert greater leverage to get his program through Congress. It was the Indiana leader who, more than any other man, induced the President to speak out in support of the Landrum-Griffin labor reform bill—a “tough” bill of the kind that Rep. Halleck has always favored.

Although Rep. Halleck has never lost an election since he became an Indiana prosecutor in 1924, he has dropped many important decisions inside the party. He nominated his fellow Indianan, Wendell L. Willkie, for the 1940 presidential nomination, but when Willkie lost, Halleck was at odds with followers of the late Sen. Robert A. Taft. He was a strong isolationist before World War II, and the memory of that record returned to haunt him in 1948. Virtually promised the vice-presidential nomination by Thomas E. Dewey in that year, he was finally sidetracked because of his isolationist “taint.”

The 1948 Republican defeat also cost Rep. Halleck his two-year job as House majority leader. He hung on grimly until Gen. Eisenhower appeared as a presidential possibility, jumped on the Eisenhower bandwagon, and fought for his nomination. But Ike twice declined to back Rep. Halleck against Rep. Martin for the House leadership in 1954 and 1956. After the Republican congressional shellacking of 1958, the President kept silent and Rep. Halleck took the minority leadership from Rep. Martin.

By mid-1959, Rep. Halleck's demonstrated might in joining with the President to hammer their program through the House had revived his consideration as a vice-presidential prospect.

All his life, Rep. Halleck has thrived on politics. Son of a Republican State Senator, he was a brilliant college and law school student at Indiana University and president of the Student Union. After ten years as a local prosecutor, he won election to the House despite a Democratic national sweep.

In 1927, Mr. Halleck married Miss Blanche A. White, whom he met while he was at college. They have twin children, Charles and Patricia White Halleck. At 59 years of age he remains an energetic, relentless, aggressive political leader.

HUBERT H. HUMPHREY

(Born: Wallace, S. D., May 27, 1911)

Sen. Hubert H. Humphrey of Minnesota, a whirlwind of words and solid accomplishment, became the first almost-avowed candidate for the Democratic presidential nomination in July, 1959. He cinched his decision further by announcing that he would run in the Wisconsin presidential primary on April 5, 1960—and expected to win.

There was the widest difference about his chances. He is an articulate liberal with a Senate voting record that fully supports his claim to the label.

Sen. Humphrey cannot expect much support from Southern Democrats; in the 1948 Democratic convention, he pushed through a solid civil-rights plank that drove the Dixiecrats out of the hall and infuriated many Southerners who wanted the issue buried or greatly watered down. At the 1952 convention, he was again embroiled with the South on the "loyalty oath" issue. He hoped for the vice-presidential nomination in 1956, but failed to receive the backing of Adlai Stevenson.

He fought Red elements in the Democratic-Farmer-Labor party during his first Senate campaign, enjoyed almost no newspaper support, and appeared to have little chance against Republican Sen. Joseph Ball. Nevertheless, he defeated Ball by over 200,000 votes, becoming the first Democratic Senator ever elected in Minnesota. He had been elected Mayor of Minneapolis in 1945 at the age of 34.

In all his campaigns, as in the Senate, he speaks tirelessly, intelligently, and practically any time. When he met Nikita Khrushchev in Russia during 1958, their interview went on for hours—and there is no evidence that Sen. Humphrey was out-talked.

Born in South Dakota, he was the son of a druggist, graduated with honors from a pharmacy school, and took further honors in graduating from the University of Minnesota, despite a six-year interruption in his education because of Depression hardships. He held several administrative political jobs before running for mayor.

He married Miss Muriel Buck in 1936. They have a daughter and three sons.

HENRY M. JACKSON

(Born: Everett, Wash., May 31, 1912)

Sen. Henry M. Jackson of Washington, one of the younger Democratic Presidential possibilities, has substantial legislative service for a man of 47—seven years in the Senate and twelve years in the House. He has never lost an election.

In 1959, Sen. Jackson became chairman of a special panel of the Senate Government Operations Committee charged with simplifying and co-ordinating American foreign policy.

He is chairman of the House-Senate Atomic Energy Military Applications subcommittee. He was a leader in urging a full program for peaceful uses of atomic energy and was one of those who joined in the critical vote to go ahead with development of the hydrogen bomb.

He is also a member of the Senate Armed Services Committee. A moderate liberal, he is an industrious campaigner and a blue-eyed, brown-haired bachelor of clean-cut appearance.

LYNDON B. JOHNSON

(Born: near Stonewall, Tex., Aug. 27, 1908)

Sen. Lyndon B. Johnson of Texas, Democratic Majority Leader of the Senate, is sometimes called "the second most powerful man in the country."

Since the beginning of the Eisenhower Administration in 1953, Sen. Johnson and House Speaker Sam Rayburn, his fellow-Texan, have avoided all-out opposition to the President. Both men believed it would be a fatal political mistake to attack a tremendously popular President.

Nevertheless, Sen. Johnson preserved much of the Democratic program by skillful parliamentary maneuvering, and his followers felt he had advanced himself as a 1960 presidential possibility. He appeared to have recovered fully from his 1955 heart attack, as well.

The Democrats won a huge Congressional victory in 1958, but it brought new headaches for Sen. Johnson. Paul M. Butler, Democratic National Chairman, and a group of young Democratic Congressional liberals openly attacked the Johnson leadership for "going along" with Eisenhower and ignoring the liberals in their own ranks.

The President, taking a more active role in Congress, largely got his own way on housing. Although the Democrats in Congress had more votes than at any time since the early New Deal days, the imprint of President Eisenhower was all over their work.

Born near Stonewall, Tex., Sen. Johnson went through college and law school and worked as a construction laborer, teacher, lawyer, and six-term Texas Congressman before being elected to the Senate in 1948. He won a second term in 1954. He was chosen assistant floor leader in 1951 and majority leader in 1955. He is generally regarded as one of the ablest majority leaders ever to serve in the Senate.

He is married to the former Claudia Taylor. They have two daughters.

JOHN F. KENNEDY

(Born: Brookline, Mass., May 29, 1917)

Sen. John F. Kennedy of Massachusetts is an unquestionable front-runner for the Democratic presidential nomination, although the fact that he is a Roman Catholic still rates as a liability in the Deep South and other heavily Protestant areas.

Against this probable handicap is the impressive "Jack" Kennedy parlay—youth, good looks, poise, education, a brilliant war record, wealth, political experience, and an obvious willingness to fight for the nomination.

Sen. Kennedy was the author of the moderate Kennedy Bill to eliminate racketeering from labor unions. He sharply disagreed with President Eisenhower's support of the much stiffer Landrum-Griffin bill, saying that while it might outlaw union corruption, it would also wreck many legitimate unions. The Senate and House later agreed on a compromise labor bill.

At 42, Sen. Kennedy has come far and fast in national politics. Son of the former Ambassador to Great Britain, Joseph P. Kennedy, he was graduated from Harvard with honors, published his first book in 1940, and served as a Navy P. T. boat commander during World War II, suffering injuries. While convalescing, he wrote *Profiles in Courage*, which won the 1957 Pulitzer Prize for Biography.

He was elected to the House in 1947 and to the Senate in 1952, showing charm and energy as a campaigner and making a solid hit with women voters.

Politically, he is liberal, an advocate of closer Congressional control over government spending, and a strong backer of technical aid to underdeveloped countries. He has not hesitated to make speeches defending civil-rights legislation in the Deep South, and has impressed favorably those who opposed him.

In 1956, he just missed being nominated as the Democratic choice for Vice President. Sen. Estes Kefauver of Tennessee finally took the victory, but not before a lot of Southerners had indicated that Sen. Kennedy was their first choice.

In 1953, Sen. Kennedy married Jacqueline Lee Bouvier, an unusually pretty girl. Their first child, Caroline, was born in 1957.

HENRY CABOT LODGE, JR.

(Born: Beverly, Mass., July 5, 1902)

Ever since Henry Cabot Lodge, Jr., became the chief United States delegate to the United Nations in 1953, he has quickly and effectively counter-attacked every blast of Communist propaganda uttered in that forum. His hard-hitting tactics in debate have kept him in the public eye at home and abroad.

Mr. Lodge, who holds the diplomatic rank of ambassador, is the tall, handsome descendant of an American family long distinguished in public service. He was an original backer of President Eisenhower and was his campaign manager until the 1952 Republican national convention.

This devotion to the Eisenhower cause, some of his friends feel, led him to neglect his own campaign for re-election to the Senate, when he was beaten by the young, aggressive John F. Kennedy. He was appointed to the U. N. shortly after that defeat.

He had served fourteen years in the Senate, taking time out to serve in European and North African battle areas during World War II. He said that his war service converted him from his earlier isolationist views.

Like Sen. Kennedy, he was graduated cum laude from Harvard. He worked as a reporter on Boston and New York newspapers before he won election to the Senate in 1936. He resigned in 1944 because of a Presidential ruling barring members of Congress from war service, but won back his senatorial seat in 1946.

Mr. Lodge is married and the father of two sons.

MIKE MANSFIELD

(Born: New York City, Mar. 16, 1903)

Sen. Michael Joseph (Mike) Mansfield of Montana, the Senate's Democratic majority whip, long considered an authority on American foreign policy, last February proposed that Berlin be unified by direct negotiations between East and West Germany, with a United Nations police force remaining in Berlin to supervise any agreement reached.

The proposal, a sharp departure from the Eisenhower Administration policy of four-power negotiation on Berlin, stunned the Republicans, who said it "pulled the rug" from under the unified American stand on Berlin. Several Mansfield opponents felt his speech was a Democratic opener for the 1960 presidential campaign. Whatever his motives, Sen. Mansfield had once again put himself in the national news, both as a Democratic leader and a potential, if remote, prospect for the 1960 presidential nomination.

Sen. Mansfield also attracted praise and criticism in May, 1959, by proposing that gift economic aid to other countries be halted within three years and replaced by repayable assistance.

Re-elected to his second Senate term in 1958, Mike Mansfield was publicly praised by fellow Senators of both parties when he became 56 on last March 16. A heavy-set, pipe-smoking intellectual, he is a linguist and former history professor.

Born in New York City, he moved to Missoula, Mont., as a child, left home at 14 to join the Navy, and also served in the Army and Marines. With the Marines, he went to China, learned Chinese there, and still speaks it well. He was graduated from Montana State University, became a full professor of Latin American and Far Eastern history, and was elected to five terms in the House before becoming a Senator in 1952.

He is married to the former Maureen Hayes, and they have one daughter, Anne.

ROBERT B. MEYNER

(Born: Easton, Pa., July 3, 1908)

Robert B. Meyner, 51-year-old Democratic Governor of New Jersey, is one party leader whose name has been considered as a possible presidential nominee. More often, because he is a comparative newcomer to the national scene, he has been mentioned for the Democratic vice-presidential choice.

First elected in 1953, when no Democrat appeared likely to win in New Jersey, Gov. Meyner strengthened his position by modernizing state administrative methods and uncovering corruption left by previous administrations. He traveled extensively, wrote about his visit to Russia in newspaper articles, and made numerous public appearances outside his own state.

His political assets are numerous. He is a good-looking man of youthful appearance, and his wife, the former Miss Helen Day Stevenson, whom he married in 1957, is both intelligent and popular. He is young for a presidential aspirant, a Navy veteran of World War II, and a tireless political campaigner.

Born in the industrial town of Easton, Pa., he was the son of a textile worker. He worked as a weaver during his school years, graduated from Lafayette College and Columbia Law School, and started practicing law. He prospered, ran for the State Senate, and served four years there.

Defeated for the Senate in 1951, he returned to his growing law firm and tried for the governorship in 1953. He won the nomination, he later said, "because nobody else wanted it." He campaigned without letup for eight

months, and was further helped by scandals in the New Jersey Republican organization. He won by 150,000 votes and increased his plurality to more than 200,000 in 1957.

RICHARD M. NIXON

(Born: Yorba Linda, Calif., Jan. 9, 1913)

Vice President Richard M. Nixon, regarded by friends and enemies alike as one of the ablest politicians in either major party, clearly holds the firmest grip on the 1960 presidential nomination of the Republican party.

Until Gov. Nelson A. Rockefeller came out of political nowhere in 1958, there was little doubt that Nixon would be the nominee. Even with the new challenge, Nixon remains the first choice of most Republican leaders outside New York State. He boosted his personal stock in Aug., 1959, by his official visit to Russia and his willingness to give as good as he got in the impromptu debate staged by Premier Nikita Khrushchev of Russia.

Mr. Nixon is a tall, presentable man with a nearly perfect platform manner. He is also a merciless campaigner who frequently accused the Democrats of coddling Communists. Democrats indignantly denied the truth of such charges. He is one issue on which Democrats are united: they don't like him.

He came from a poor Quaker family, graduated second in his class at Whittier College, went through Duke University Law School on a scholarship, worked in his spare time, and finished with high grades. He served in the Pacific with the Navy during World War II.

After the war, a group of California Republicans backed him for Congress, and he defeated Democrat Jerry Voorhis. He jumped to the Senate in 1950 by defeating Mrs. Helen Gahagan Douglas in an all-out slugging contest that Democrats still hold against him. He strongly implied that both his opponents sought pro-Communist support. He helped draft the Taft-Hartley labor law and uncovered the Whittaker Chambers "pumpkin papers," which led to Alger Hiss's conviction and imprisonment for perjury.

He was named the Republican vice-presidential nominee in 1952 and when it was disclosed that he had accepted \$18,000 to defray his Senate office expenses, he made a national television appearance in which he declared that the revelation was a Democratic "smear." He remained on the ticket and became Vice President when he was 40—the second youngest man ever to take that office.

During both Eisenhower terms, he has traveled as the President's representative, attended Cabinet and National Security Council meetings, and presided over the latter two when the President was absent. Because of his own restless energy and the President's illnesses, he is probably the most active Vice President in the nation's history.

His friends say that the old cold-steel Nixon has been replaced by a milder, more judicious figure. Democrats, however, have their persistent doubts.

He and his attractive wife, Patricia, have two daughters, Patricia and Julie.

NELSON A. ROCKEFELLER

(Born: Bar Harbor, Me., July 8, 1908)

Two names carry real weight in discussing the probable 1960 Republican presidential nominee—Vice President Richard M. Nixon and Gov. Nelson A. Rockefeller of New York.

What about Rockefeller? One year ago, he was the respected scion of an extremely rich family, which had once been highly unpopular with the American public. He had never held elective office, but had served in cultural, civic, and diplomatic posts under Presidents Roosevelt, Truman, and Eisenhower. Well-known as an art patron, he was also president of Rockefeller Center, Inc.

Entering politics in 1958, when Republicans generally took their worst licking since 1936, the 50-year-old political newcomer instantly drew large campaign crowds and enthusiastic popular interest in his race against Gov. Averell Harriman of New York. In a hard-fought, clean campaign, Rockefeller defeated Harriman by more than 500,000 votes.

Almost as soon as he took office, the new Governor, already mentioned as a presidential possibility, dashed the hopes of some of his drum-beaters by ramming a stiff tax increase through the legislature. But he broadened unemployment insurance, increased social insurance benefits, preserved state rent controls, and set a stern standard of "no favors" by forcing the harness racing commissioner out of office for accepting some free drinks and meals from track owners.

As the unpopularity of his new taxes seemed to be diminishing, Gov. Rockefeller scored an international "beat" just as Mr. Nixon returned from a widely advertised visit to Russia. His son, Steven, married a Norwegian girl who had once been a maid in the Rockefeller home—and the Governor warmly approved the match.

Born to riches, Gov. Rockefeller grew up on a slim allowance, taught Sunday school, kept out of the newspapers, and graduated with Phi Beta Kappa honors from Dartmouth College. He never smoked, and drank only an occasional sherry with dinner. His senior thesis was a defense of his grandfather, John D. Rockefeller, founder of Standard Oil Co. and a ruthless empire-builder before he turned philanthropist.

In his gubernatorial campaign, he covered the state like its highways, shook hands, signed autographs, fondled babies, and managed to look happy and completely sincere as he did so. He had rugged good looks, appeared younger than his years, and obviously charmed women voters. He took a liberal stand on civil rights and welfare benefits and carefully skirted national and international issues.

He married Mary Todhunter Clark immediately after finishing college. Besides Steven, their other children are Rodman and Ann, both married, and Michael and Mary, the only twins in the Rockefeller clan. Like his own father, Gov. Rockefeller had paddled his children when he thought they needed it, but he preserved a close, affectionate relationship with them.

ADLAI E. STEVENSON

(Born: Los Angeles, Calif., Feb. 5, 1900)

Adlai E. Stevenson, defeated in the presidential campaigns of 1952 and 1956 by Dwight D. Eisenhower and out of elective office for the last seven years, nevertheless remains a strong choice of many liberal Democrats in the 1960 presidential race.

Mr. Stevenson, 59 years old, has remained in the public eye by his books and articles based on his extensive world travels.

The former Illinois Governor is now a partner in a major national law firm, and has made no overt move toward another Democratic nomination.

Before he became Illinois Governor in a stunning upset of the state's Republicans, he had served in many responsible jobs under the Roosevelt and Truman administrations. He had been a special counsel for the Agricultural Adjustment Administration and a special assistant to the Secretary of the Navy, and had gone to Germany to evaluate results of strategic bombing in World War II. In the State Department he had been an assistant to Secretaries Edward R. Stettinius and James F. Byrnes. He was an American adviser or delegate in the early years of the United Nations.

Today, Mr. Stevenson is still regarded by many liberals as an intelligent, moderate man—in their view, the best man the party has.

Those who oppose him in his own party simply point to his two previous defeats, dismissing him with the political axiom that "a loser never wins."

Mr. Stevenson is divorced from Ellen Borden Stevenson. They have three sons.

STUART SYMINGTON

(Born: Amherst, Mass., June 26, 1901)

Sen. Stuart Symington of Missouri professes no interest in seeking the Democratic presidential nomination, but he is keenly aware that many Democrats consider him a strong contender for the post.

He has long been identified as an expert on national defense and a persistent critic of what he considers the "wasteful" defense policies of the Eisenhower Administration.

As a presidential aspirant, he has no major enemies in the party. He has a big-business background, presumably suitable to conservatives. He has a liberal record on labor and civil-rights issues, but he is acceptable to Southern Democrats. An aristocratic, dignified figure, he is a family man with two grown sons and five grandchildren.

Born in Amherst, Mass., of a wealthy industrial family, he was graduated from Yale and went to work in one of the family corporations, working upward from iron molder to assistant vice president. He retired from the business at 36, but returned to work within a year as head of the Emerson Electrical Manufacturing Co., where he soon restored industrial peace to a com-

pany plagued by a Communist-led union. He moved to the company's offices in St. Louis, Mo., at that time.

The industrialist, who had become a lieutenant at 17 in World War I, won large war contracts for his company in World War II and came to the attention of President Truman, who drew him into government service. He went to England to study military airplanes for the Armed Forces and returned to the United States to build the world's largest airplane armament plant in St. Louis. He headed the Surplus Property Board and the Surplus Property Administration after the war. He became the first Secretary of the Air Force in 1947, resigning three years later in protest over armament reductions. He was elected to the Senate from Missouri in 1952 and re-elected in 1958.

His wife, Evelyn, is the daughter of the late Sen. James W. Wadsworth of New York. There are two sons, William Stuart and James Wadsworth.

G. MENNEN WILLIAMS

(Born: Detroit, Feb. 23, 1911)

G. (Gerhard) Mennen Williams, a liberal Democrat, is serving his sixth term as Governor of Michigan. Until this year, he had been considered one of the bright presidential prospects among the young Democrats, but the tax crisis in Michigan has temporarily dimmed his hopes.

Ever since he was elected Governor in 1948, Gov. Williams has been a national figure. He is a smiling, bow-tied, handsome man, six feet, three inches tall and powerfully built.

He came of wealthy parents with separate fortunes derived from the pickle and soap industries. He won honors at Princeton University and the law school of the University of Michigan. As an attorney with the Social Security Board, he attracted the notice of former Gov. Frank Murphy of Michigan. In World War II, he won a string of battle decorations for his Navy service.

From a minor state post, he tried for the governorship and trounced the astonished Republicans. Because of its tight, specialized control of tax income, the state has never had enough cash to meet its full needs. The Recession of 1957 made the shortage acute, and when the Governor sought higher corporate and personal income tax to relieve it, the Republican-dominated Senate turned it down.

The Republicans favored a sales-tax increase. Meanwhile, Michigan has rocked perilously along for many months as the Republicans haggle with the Democratic Governor, and many state bills have become long overdue. Nothing has been solved, but Gov. Williams's political reputation has been imperiled.

Despite his background of wealth, Gov. Williams lives modestly with his wife, Nancy, and their three children. Although he is sometimes said to be under the wing of Walter P. Reuther and the United Automobile Workers, Gov. Williams has cultivated no personal links with union leaders.

In the national party, he is regarded as a liberal Northerner and a fighter for improved civil-rights legislation.

CAMPAIGNS AND ADMINISTRATIONS

1924-1944

By the late

MARK SULLIVAN and THOMAS L. STOKES

1948-1956

By

WILLIAM S. WHITE

1924-1928

By Thomas L. Stokes

Coolidge was renominated on a platform stressing prosperity—for which the party claimed credit—, tax reduction, and economy. Democrats, meeting in old Madison Square Garden in New York, ran into a bitter deadlock between Governor Alfred E. Smith, of New York, a Catholic and “wet,” and William Gibbs McAdoo of California, a Protestant and “dry.” The convention ended with a compromise candidate in John W. Davis, vulnerable politically because he was counsel for J. P. Morgan and Co. To “balance” the ticket, the leaders stuffed down the throats of the delegates the brother of William Jennings Bryan—Governor Charles W. Bryan as vice presidential candidate.

Progressives declared war on both old parties, and nominated Senator Robert M. LaFollette, of Wisconsin. A Democrat, Senator Burton K. Wheeler, of Montana, was designated the vice presidential candidate. Monopoly and monopoly control of government were emphasized in the convention’s platform as the overpowering evil of the day. The Supreme Court was singled out as inimical to the people’s interest. It was proposed that Congress be given a veto over decisions affecting constitutionality of legislation.

Coolidge’s majority of 2,000,000 over the combined vote of both the other candidates was translated into a handsome electoral vote of 382, with 136 for Davis and 13, Wisconsin’s contribution, for LaFollette, who, however, got nearly 5 million votes and ran ahead of Davis in eleven states west of the Mississippi.

Coolidge and the dominant industrial-financial interest which backed him paid no heed to the handwriting across the western horizon. Washington and New York watched the rising stock market. The West cried for relief.

Its remedy, the McNary-Haugen bill to dump surpluses abroad at whatever prices they would bring and to assess the loss back to the grower by an “equalization fee,” was twice passed by Congress and twice vetoed.

Likewise, Coolidge vetoed the bill sponsored by one of the western Republican insurgent leaders, Senator George W. Norris, of Nebraska, for gov-

ernment operation of the giant Muscle Shoals, Alabama, nitrogen plants or the First World War to produce nitrates for cheap farm fertilizer and electric power. Such a proposal then was socialism rampant; Coolidge's big business backers would have none of that.

During his vacation in the Black Hills of South Dakota, in the summer of 1927, President Coolidge startled the politicians by the one-line statement: "I do not choose to run for President in 1928." Perhaps Mrs. Coolidge had the answer in the remark attributed to her, "Papa says there's going to be a depression." He left the wrath to come to his successor, Herbert Hoover, whom he is reputed to have called "The Wonder Boy."

By Mark Sullivan

The Republicans as a matter of course nominated Coolidge, who had succeeded to the Presidency after Harding's death on getting the votes of 1,069 delegates in the convention. Thirty-four delegates supported Senator LaFollette of Wisconsin. LaFollette, after the overwhelming rejection of him, was nominated as the candidate of a new third party, set up by a "Conference for Progressive Political Action."

For the Democratic nomination, a contest between William G. McAdoo and Governor Alfred E. Smith of New York prolonged the convention for sixteen days, a length unprecedented since the Civil War. McAdoo reflected geographically the Democracy of the South and rural districts; Smith, the North and the big cities. Ideologically, McAdoo was "dry"; Smith was "wet." Associated with the conflict, to some extent tacitly but frequently outspoken, was religion. Smith was a Catholic. Much of the struggle in the convention was over a resolution to denounce the Ku Klux Klan. One side, with William Jennings Bryan its spokesman, was willing to disapprove of the Klan in general terms. Smith and his side insisted that it be denounced specifically, by name. By an extremely close vote, the Smith side lost.

After Smith and McAdoo had "killed each other off," the convention, exhausted, nominated John W. Davis, a Democrat of the Jeffersonian school, formerly in Congress as a Representative from West Virginia and later Ambassador to the Court of St. James by appointment of Wilson.

The people liked Coolidge's temperament, and elected him in 1924 because they were enjoying a budding prosperity which, they felt, Coolidge would not disturb.

Secretary of Commerce Hoover reported: "The United States has produced and consumed more goods in 1925 than ever before in its history." He added, reflecting his understanding of what business exists for, "our standard of living has been the highest in our history and is of course the highest in the world."

There were some who remembered that plenty may be followed by drought, and recognized the dangers that might turn the present benevolent prosperity into unwholesome boom, and after that malevolent bust. Secretary Hoover, in his report of superlative prosperity, included a warning. Speculation in real estate and stocks, he said, and over-extension of installment buying might bring peril.

One of the perils, perhaps the most dynamic, was excess of money and credit, due to the inflation that had accompanied the war.

Abundance of credit increased, and this was a precipitating factor among the causes of the collapse of 1929 and the depression following. That collapse and depression determined most of the country's national politics for more than a decade following.

Similarly potent in determining national politics during the 1930's and later was the condition of farming, and an attempt to overcome it, which Coolidge frustrated.

The farmers had suffered their postwar collapse quickly, in 1921-22. For seven years they endured the grinding distress of low prices.

Two Republicans, Senator McNary of Oregon and Representative Haugen of Iowa, introduced a bill to set up a government agency with functions which included price-fixing of farm commodities and purchase and sale of them. The bill was vetoed by Coolidge, who called it, in language sensationally violent for him, "an economic fallacy from which this country has every right to be spared." In his veto message he said: "This is bureaucracy gone mad . . . such autocratic domination over our major industry . . . would poison the very wellsprings of our national spirit."

That veto by a Republican President, the frustrating of a measure for farm relief, sponsored by Republicans, and the farm distress of which the bill was meant to be a cure, became a strong factor in the country's politics after 1929. It did not, however, affect the outcome of the 1928 election.

1928-1932

By Thomas L. Stokes

Herbert Hoover was nominated by the Republican convention on the first ballot. Some were skeptical—the professional politicians who distrusted a man who had never run for public office and had seldom cast a ballot, and the high priests of American finance and industry. Hoover had been safe enough as Secretary of Commerce, but now a group of intellectual "liberals" were claiming him for their own and predicting great things.

Alfred E. Smith triumphed easily in the Democratic convention. For the third time, his name was put in nomination by Franklin D. Roosevelt.

Al Smith refused to accept the "dry platform" his party adopted at Houston and announced that he would write his own personal platform on the issue, which was for "fundamental changes" in the prohibition law to "secure real temperance, respect for law, and eradication of existing evils," but not for return of the saloon.

He pledged farm relief along lines of the McNary-Haugen bill, and development of public power—both popular in the West.

Hoover was for what he called "an experiment . . . noble in purpose," shortened in popular language to "the noble experiment," meaning prohibition. He had more conservative views than his opponent on farm relief. He was primarily the apostle of continued prosperity, which the Republican Na-

tional Committee put very alluringly in advertisements promising "a chicken in every pot and two cars in every garage." Hoover, himself, proposed to banish poverty in America. His victory was overwhelming—over six million majority. He shattered precedent by breaking into the Solid South, carrying Virginia, North Carolina, Florida, and Texas, reflecting the religious, social, and prohibition antagonism to Al Smith, the man from the sidewalks of New York.

Within less than three months Hoover got through Congress his first farm bill, setting up a Federal Farm Board to lend money to farm cooperatives to buy up farm surpluses and take them off the market by storing them or selling them abroad. This did not satisfy the western agrarians, including Borah. Next, they were definitely alienated by the turn that the tariff issue took. Borah had understood that Hoover intended to limit tariff revision to agriculture. But the President included "limited revision" of industrial rates. This invitation was seized eagerly by the industrialists and they came pouring through the breach to produce eventually, through the familiar log-rolling process, the Hawley-Smoot Tariff Act that became notorious throughout the world. Borah and the Westerners joined with Democrats, Progressives, internationalists, and outstanding economists, in imploring the President to veto the bill. He signed it.

This identified Hoover with the conservative element of the party and its business affiliates. Western insurgents worked with Democrats against him. He was handicapped further when Democrats assumed control of the House in 1931.

The depression had become a reality. Washington and the East woke up to it rudely and belatedly with the stock market collapse in October, 1929.

Hoover reacted with phrases that became ironic and returned to plague him—about prosperity being "just around the corner" and business being "fundamentally sound." He did recognize at the outset, however, the responsibility of the President and the federal government for leadership. He began to act in the traditional way, that is, through conferences and committees. He called railroad leaders to the White House and asked them to help by maintaining normal construction work. He summoned business and labor leaders two days later—that was in November, 1929. He got a pledge from industrialists not to cut wages, but sincere though it may have been, it was not long kept.

As the unemployed became a great multitude, the issue arose as to whether the federal government should appropriate money directly from the Treasury for relief. It came up first, and in a relatively minor way, in Congress early in 1931 in connection with a drought in southern and southwestern states, which hit Arkansas with particular intensity. When a bill to appropriate \$45,000,000 for loans to drought sufferers for purchases of seed and feed for cattle came up in the Senate, the Democratic leader there, Senator Joseph T. Robinson, of Arkansas, sought to attach an amendment for an appropriation of \$20,000,000 to feed the human sufferers.

Here Hoover took his stand against direct federal appropriations for re-

lief, seeing how a precedent might be established for broad application later in the general depression situation. Some Democrats and Republican insurgents in both branches of Congress asked bitterly whether Congress was going to vote money to feed animals and not human beings. Hoover retorted, "Our American system requires that municipal, county, and state governments shall use their own resources and credit before seeking such assistance from the Federal Treasury." He did promise, however, that "if the time should ever come that the voluntary agencies of the country together with the local and state governments are unable to find resources with which to prevent hunger and suffering in the country, I will ask the aid of every resource of the federal government because I would no more see starvation amongst our countrymen than would any Senator and Congressman. I have faith in the American people that such a day will not come." The item was eliminated from the bill.

But a day did come when the President was forced to move with direct federal action—not direct appropriations to feed people, but financial assistance to shore up the tottering financial and industrial structure that now was beginning to crack at the seams. This was through creation by Congress, on Hoover's recommendation, of the Reconstruction Finance Corporation, the world's greatest bank, which was authorized at first to lend to banks and other financial institutions and railroads.

The RFC solution of Hoover brought criticism upon him for using the resources of the federal government to bail out "the big fellows" while still resisting direct appropriations for the "little fellows" at the bottom of the economic heap. But he was being beaten back slowly by circumstances and he compromised, too, on this front by approving inclusion in the over-all relief bill embracing the RFC of an appropriation of \$300,000,000 for loans to states for direct relief, which nobody ever expected would be paid back, and which were not.

Things got worse. The Bonus Army, several thousand jobless veterans, converged upon Washington. They were routed out one night, on orders of the President, by General Douglas MacArthur, Chief of Staff of the United States Army. They dispersed peaceably. The Bonus Bill was enacted by Congress, vetoed by President Hoover, passed over his veto.

Last of all came the thundering crash of banks all over the country.

Hoover's Administration was so engulfed in the emergency that neither he nor Congress had much time for other measures.

President Hoover appointed a commission headed by George W. Wickersham to investigate prohibition. A majority favored some change, but Hoover still opposed any change. Toward the close of Hoover's Administration, however, Congress submitted a repeal amendment to the states.

In the Far East there was an ominous prelude to the future when Japan began her conquest of China by the seizure of Manchukuo, and here President Hoover moved with vigor that merited a better reward. Our government through Secretary of State Henry L. Stimson called on the other signatory powers to the Kellogg-Briand Pact to join in stopping this aggression. But Great Britain and France declined.

President Hoover had a series of conferences with President-elect Roosevelt in the interim between election and assumption of office by the new Democratic Administration. Roosevelt declined to commit himself in advance on international policy, and declined to accept joint responsibility in action closing the banks.

By Mark Sullivan

Nearly a year before the 1928 Republican convention, President Coolidge, taking notice of suggestions that he be nominated for a third term, gave out a statement, "I do not choose to run." After a searching of dictionaries, and pursuing variations of New England idiom to the Vermont hills that were Coolidge's birthplace, in order to find the precise shadings of refusal and firmness conveyed by the word "choose," the conclusion was that Coolidge was not available. The nomination was given to Secretary of Commerce Hoover.

When the Democrats nominated Governor Alfred E. Smith of New York, it was, to a considerable degree, an act of resignation on the part of Southern and "dry" leaders of the party. They recalled the deep split in the party caused by the rivalry of "wet" Smith and "dry" McAdoo in 1924. They recognized the power of Smith's personality and the strength of his following, and the momentum of the "wet" cause. They knew also the harm done the party by widespread feeling that one of the causes of the rejection of Smith in 1924 had been his religion.

That religion had a part in the campaign and election could not be denied. The frank opposition to Smith on the ground of his "wetness," and his association with Tammany, carried with it an opposition, sometimes open but often silent or furtive, based on his religion. Hoover, distressed by it to the marrow of his Quaker humanity and tolerance, publicly repudiated it and sternly insisted that party workers everywhere do the same. When, in the election, Smith lost five Southern states, habitually and strongly Democratic and also strongly Protestant, the charge that religion played a part was accepted as convincing.

Barely seven months after Hoover was inaugurated, economic storm loosed its initial thunderbolt, in the form of a collapse of prices on the New York Stock Exchange. Month after month, his back to the wall, Hoover confronted blow after blow—spreading unemployment, falls in prices of farm products already low, homes and farms lost by foreclosure of mortgages, shutting down of industrial plants, bankruptcies of business—the sum of all, a spreading economic paralysis.

After a year and a half, by about early Spring of 1931, there was evidence that the storm had lost its force and on this assumption there was a stirring of hope and confidence. But soon came a new storm, the more unexpected and discouraging because it came from abroad. The initial blow, failure of a central bank in Vienna, important throughout the finance and industry of Central Europe, was followed by other blows including termination of German payments of reparations to Britain and France. Each blow caused others,

like falling cards. Presently there was flight of gold from one country to another, and then, as faith was lost in the sanctuary, flight to still another. Gold, Hoover remarked, was like a loosed cannon plunging about on the deck of a ship in a storm.

That the constant stress and wrenching strains of the depression would endanger the country's economic system and even its form of government, was plain enough. Country after country had gone collectivist and authoritarian, either the Communist type of Russia or the Fascist type of Italy. If ever America was in danger of revolution, if it was susceptible to revolution, this was the time.

This Hoover realized. The business and industry of the country must be buttressed, and distress of the people relieved, and this necessitated emergency measures. But the measures must be so chosen and so administered as not to destroy the country's economic and governmental system, or start a process that would end in destruction.

The careful path was hard. A basic detail of it, in Hoover's mind, was that the country must be kept solvent, to the end, among others, that its currency remain sound. There must be spending, of course, to relieve distress and to buttress banks and other institutions. At the same time there must be a guard against the danger that mounting deficits might bring wreck of the country's credit and of its currency which, as had happened in other countries, might open the way to totalitarian government. Hoover's measures for relief inevitably involved large expenditures. But he held that while the federal government should use all its powers, it should preserve the fiscal strength of the country.

Hoover managed it. After more than three years of his Administration, a commentator wrote in August, 1932: "No change has been made in American institutions. The government, as Hoover heads it today, is the same with which he was entrusted. Nine out of ten countries of the world have either changed their form of government, or gone through revolution, or abandoned their standard of currency, or adopted other autocratic measures."

1932-1936

By Thomas L. Stokes

The overwhelming verdict of the American people against Herbert Hoover was foreseen months before the event. Defeatism was apparent in the convention which assembled in Chicago to renominate him.

Democrats gathered afterward in Chicago in triumphant mood and left even more triumphantly, sent off to their campaign by the ringing appeal for a "new deal" by their candidate, Governor Franklin D. Roosevelt of New York, who broke precedents by flying to Chicago from Albany after his nomination to address the convention in person. His nomination had come on the fourth ballot after a show of resistance by other candidates, among

them, his one-time sponsor and now openly declared enemy, Alfred E. Smith, who thought he deserved another try.

Nowhere in the concise and unusually short platform, which heavily stressed government economy, a balanced budget, and sound money, was there any hint of the era that followed. His campaign speeches contained no blueprint of the sweeping changes he fostered subsequently, though he did outline a broad philosophy, which was that the American economy must be readjusted so that its benefits would be distributed more equably. It is unlikely that campaign speeches had much influence with the people at large. They wanted a change, and they voted it, overwhelmingly, over seven million majority, casting twenty-two million votes for Roosevelt. Hoover, who got 15 million, carried only six states in the East and Northeast.

Roosevelt electrified the nation with his inaugural address—"the only thing to fear is fear itself"—standing on the platform at the front of the Capitol, head bared to the raw March wind, instilling courage into a dejected and despairing people. He had said, "We must act quickly"—and he did. Two nights later he closed the nation's banks under a plan worked out by Treasury officials of his Administration in cooperation with Republican officials who had remained behind, at his request, to assist. The following night, in the first of his famous "fireside chats," he explained the problem to the people in simple terms over the radio. He had summoned state governors to the White House a few hours after he took office to appeal for their cooperation, and to them, reflecting the basic conservatism of the platform, he said that while the federal government must prevent anyone from starving, the primary responsibility was upon states and localities, and the federal government should not act until their resources had been exhausted. He called Congress into special session before he had been in office a week and there began that amazing series of legislative acts to repair the broken economy, beginning with an emergency banking act providing regulations for opening of the banks, also drafted cooperatively with former Republican Treasury officials.

Every front was attacked boldly and resolutely in what became known as "The First Hundred Days." To provide jobs in industry, there was the National Industrial Recovery Act, setting up the NRA which provided for exemption of business and industry from the antitrust acts to sign voluntary codes establishing the 40-hour week to spread employment and minimum wage scales to inject purchasing power into the bloodstream of business. Included in NRA codes also was the famous Section 7a to guarantee labor the right of collective bargaining, which opened the way for organizing campaigns for labor and which, with the wages and hours standards, laid the basis for subsequent legislation.

To resuscitate agriculture, there was the Agricultural Adjustment Act, creating the AAA—Agricultural Adjustment Administration—equally famous in the field of farming, under which, to meet the surplus problem, crops were limited and farmers were paid benefits for taking land out of cultivation from proceeds of a processing tax levied at the processing level.

To relieve unemployment among youngsters who could find no jobs, there was created the Civilian Conservation Corps, providing work in conservation of forests and forest resources. For protection of investors from the abuses that were beginning to be revealed in the exhaustive Senate Banking Committee investigation of the New York stock exchange and banking and financial practices, conducted by Ferdinand Pecora as chief counsel, the initial legislative act was what was known as "The Truth-in-Securities Act," requiring registration and approval of all stock and bond issues with and by the Federal Trade Commission. For the protection of bank depositors, a Federal Deposit Insurance Corporation was established in the Glass-Steagall Act to guarantee bank deposits up to \$5,000, achieving a reform first advocated and sponsored by a Republican, Senator Arthur Vandenberg of Michigan. Home owners were taken care of in the Home Owners Refinancing Act setting up the Home Owners Loan Corporation which was authorized to take over mortgages under terms that would stave off foreclosures.

In the broad field of social and economic experiment, Roosevelt espoused the dream of Senator George W. Norris for utilization of the Muscle Shoals, Alabama, government-owned power and nitrate plants of the First World War, and expanded the project into the Tennessee Valley Authority, TVA, for development of the Tennessee River for power development, flood control, navigation, and land conservation and improvement under government auspices. Congress approved it.

In the Gold Reserve Act, the President was authorized to fix the price of gold and silver, a power that first was exercised, through the Treasury Department, in daily manipulations boosting the price of gold, and eventually in devaluation of the dollar by executive decree to 59 cents.

Despite all these measures the unemployed were still abroad in the land, millions of them, and eventually the Administration took the course against which Herbert Hoover had been so adamant. Congress voted huge sums to provide made work and food for the jobless and established the Works Progress Administration, the WPA to administer this giant undertaking under Harry L. Hopkins.

The earlier "Truth-in-Securities Act" was supplemented by another and broader statute for regulation of the New York and other stock exchanges by a new federal agency, the Securities and Exchange Commission, or SEC. The SEC administered the act, which required licensing of stock exchanges, outlaw of certain speculative practices, and full financial statements from registered companies, except for one function, fixing of margins, which was delegated to the Federal Reserve Board.

In the field of social reform, there was the National Labor-Relations Act, known as the Wagner Act from its sponsor, Senator Robert F. Wagner (Democrat, New York), which wrote into law the guarantee for collective bargaining first provided by code in NRA, and set up the National Labor Relations Board to supervise and certify elections among workers. Another fundamental social reform was the Social Security Act, with its provision for old-age pensions at the age of 65, unemployment compensation administered under state

laws, and grants to states for assistance to the aged, blind, orphans, and widows.

In May, 1935, the Supreme Court effectively killed NRA by holding substantial features of it unconstitutional. A few months later, in January, 1936, the Supreme Court likewise nullified AAA by holding that the processing tax for financing it was unconstitutional. Both of these decisions stirred up a great issue.

Even before the Roosevelt Administration had taken office, Congress had accepted the mandate of the election on national prohibition and began the process of rooting it out of the Constitution by submitting to the people for ratification the 21st Amendment to repeal the 18th Amendment. Soon after he entered the White House, President Roosevelt recommended to Congress a law legalizing light wine and beer and Congress authorized 3.2 percent beer and wine in a bill that he signed into law March 22, 1933. National prohibition finally came to an end on December 5, when ratification of the 21st Amendment was completed.

In another direction, however, the Administration was successful in initiating an international trade promotion policy. Congress enacted what has come to be called "the reciprocal trade program" authorizing the State Department to enter negotiations with other nations to lower tariffs and remove other trade barriers, which took tariffs out of the domain of Congressional logrolling. This policy, for which most credit went to Secretary of State Cordell Hull, who long had pioneered it, was an enlargement on the flexible tariff idea originated by Republicans many years before.

By Mark Sullivan

Franklin D. Roosevelt, in his campaign, cried out, "Let us have the courage to stop . . . the deficits . . . and insist on a sound currency." He solemnly affirmed a plank in the Democratic platform for "an immediate and drastic reduction in government expenditures . . . to accomplish a saving of not less than 25 percent in the cost of federal government . . ."

Roosevelt, within a week after he became President, acted upon his pledge of economy with a rigor which made his action, so long as it lasted, the boldest step in government economy ever taken by any President. To Congress, March 10, 1933, he sent a message saying: "For three long years the federal government has been on the road to bankruptcy," with "an accumulated deficit of five billion dollars . . . we must move with a direct and resolute purpose."

Roosevelt received authority to cut up to 15 percent in the salaries of government officials and workers, and up to 25 percent in pensions and benefits for veterans. But his stern drive for economy ceased within six weeks after inauguration. In April, 1933, paper currency was made no longer redeemable in gold and gold was withdrawn from circulation. A policy of large expenditures, for relief of unemployment and other purposes, was initiated.

Roosevelt retained hope of balancing the budget, later. In his first annual

message to Congress, January 1934, he spoke encouragingly of "a definitely balanced budget for the third year of recovery (1936) and from then on . . . a continuing reduction of the national debt." That hope was repeated in every budget message until 1939. By then the accumulated national debt was some 50 billion dollars.

Roosevelt's campaign speeches had not created expectation of drastic innovations. But during his first term he put through a group of measures for the sum of which the "New Deal" came to be a common term, justified by the novelty of the legislation. NRA suspended the antitrust laws, established trade associations in industries and businesses, and authorized them to set up codes of fair competition.

The Agricultural Adjustment Act, 1933, authorized limiting of acreage of farm crops and paying of benefits to farmers, the money to be raised by a "processing tax" upon processors of farm products.

By the Tennessee Valley Authority, 1933, the federal government was empowered to develop and sell electric power. The Social Security Act provided old-age benefits based on earnings before the age of 65. The National Labor Relations Act made collective bargaining compulsory on employers, strictly forbade what the act called "unfair labor practices" by employers, and otherwise gave far-reaching advantages to labor and labor unions.

The sum of the New Deal innovations became the comprehensive issue in the 1936 campaign. So far as Roosevelt's going counter to his pledge to reduce government spending had a part in his campaign for re-election, it was less a detriment than perhaps an advantage. Much of the Roosevelt spending had been done to provide work for unemployed persons, and the number of these and their relatives was a considerable part of the electorate.

1940-1944

By Thomas L. Stokes

Roosevelt was renominated to break the precedent against a President seeking a third successive term, and the atmosphere about the 1940 Chicago convention had a cynical tinge because of a lot of clap-trap about a "draft" that was no "draft" at all, since it all had been planned in advance.

Vice President Jack Garner, who was instrumental in the formation of the Southern Democrat-Republican coalition in Congress to check further New Deal reforms, was dropped, and Secretary of Agriculture Henry A. Wallace was imposed by the President upon a reluctant convention in a gesture to the now neglected New Dealers.

A new figure emerged as the nominee of the Republican convention in the engaging person of Wendell L. Willkie, once a Democrat, a lawyer-businessman who directed a great private utility. His nomination was the culmination of a coup by a strange combination of big business backers, who had financed a short but very effective propaganda campaign in his behalf beginning only a few months before the convention, and zealous "amateurs," as they were called, consisting of people all over the country who

were weary of the old type politicians and political hacks and wanted a new face and new blood.

Willkie was one of the few at that convention who sensed the real threat to our own security in war developments in Europe, though the convention assembled only a few days after the fall of Dunkerque, the fall of France and the triumphant entry of the German army into Paris. The platform opposed involvement in foreign wars, charged that the Democrats had left the nation unprepared; pledged to build up national defense, and condemned President Roosevelt for utterances and acts leading to war. It favored aid to peoples fighting for liberty if this did not violate international law or weaken our own national defense. The Republican party had become the party of isolation, though its nominee was in the internationalist tradition, as he had made clear in speeches in the weeks preceding the convention.

Willkie accepted most of the New Deal economic and social reforms, but promised, if elected, to administer them better. As for the main issue of war or peace, both Roosevelt and Willkie promised not to send American boys to fight in "foreign wars."

The intense popular interest in the election was shown in a total vote off slightly under 50,000,000. It was divided: Roosevelt, 27,243,466; Willkie, 22,304,312; and the rest going to minor parties. Roosevelt got 449 electoral votes, carrying 38 states, while Willkie carried 10 states for an electoral vote of 82.

Soon after the beginning of 1941, Roosevelt created the National Defense Advisory Commission to administer production. Jointly headed by William S. Knudsen, of General Motors, and Sidney Hillman, C. I. O. President, it was the first of a series of defense and war production agencies which grew, one out of the other, in successive reorganizations, with new names and initials, to end finally in permanent form in the War Production Board, WPB, into which thousands of businessmen were enlisted. In late May, 1941, Roosevelt declared an "unlimited national emergency." The continuing hold-back in the nation, despite the relentless advance of the German war machine, was manifest in Congress in August when extension of the draft act was carried in the House by a single vote, 203 to 202, with Republicans making a party fight against it. But Pearl Harbor, on December 7, changed all that, and the nation girded itself for its battle for survival. Congress voted billions upon billions for the war, and the nation was regimented in a manner that made regimentation of the First World War almost insignificant.

Of many dramatic episodes in Congress during Roosevelt's third Administration, of which the declarations of war on Japan and Germany were outstanding, was another occasioned by President Roosevelt's veto of a tax bill, the first veto of a tax bill in history.

This tax bill was illustrative of the preponderant conservative influence in Congress. This conservatism was heavily entrenched by the 1942 Congressional elections when Republicans all but captured the House, running their strength there to 209, just nine short of a majority, and with a gain of ten seats in the Senate to bring their total to 38 in that body where 49 was a majority. These

gains made possible a firm and workable coalition of Republicans and conservative southern Democrats that successfully blocked any domestic legislation in the New Deal pattern, and, on the other hand, provided such favorable terms for big interests to capitalize on their opportunities during the war, not only in award of contracts, renegotiation and tax allowances, but also for purchase of surplus war plants, that they emerged greatly strengthened from the war, and with new potentials for monopoly.

Repeatedly during Roosevelt's third Administration conservatives sought to pass bills restricting privileges of labor unions. Such measures were passed by the House, but always stopped in the Senate. However, under provocation of John L. Lewis's coal strikes and threatened strikes, Congress finally passed what was known as "the antistrike" bill, a war emergency measure to expire six months after the end of hostilities. It gave the President power to seize plants and mines when there was disturbance to production by strikes, and prohibited strike activity by union leaders in seized plants or mines. The President vetoed the bill.

By Mark Sullivan

It was the outbreak of the war in Europe, and the need of America to take account of it—need, as the overwhelming majority of Americans felt, to avoid involvement in it—that provided much of the justification for Roosevelt's attempt at a third term. Roosevelt as President was familiar with the war and the implications it had for America.

In the Republican convention, the two leading contenders, Senator Robert A. Taft of Ohio and Governor Thomas E. Dewey of New York, failed to make progress after the early balloting. The convention turned to one who most of his life had been an active Democrat, and who, until shortly before, had been little known to the country, Wendell Willkie.

The Democratic platform was forthright and specific: "We will not participate in foreign wars, and we will not send our army, naval, or air forces to fight in foreign lands outside of the Americas, except in case of attack." The Republican platform was tersely firm: "The Republican party is firmly opposed to involving this nation in foreign wars. . . . We are still suffering the ill-effects of the First World War."

To Roosevelt's prospects for election, the war was at once a detriment and an advantage. As President he had to go on with steps for preparedness. The Draft Act was passed and signed by him at the very height of the campaign. But Roosevelt had the strings of foreign relations in his hands, and presumably could avoid involvement better than a new President. Moreover, most of our people earnestly wished Britain and France to win, and hated Nazi Germany. This was Roosevelt's feeling, and his frequent expressions of it, making the Germans angry, had caused them to retort with denunciations of him.

On December 7, 1941, the qualifying clause in the Democratic platform "except in case of attack" was invoked by the attack of the Japanese at Pearl Harbor. The following day we declared war against Japan, three days later against Germany.

1944-1948

By Thomas L. Stokes

With the nation at war, the Democrats had no problem about a choice for President in 1944. It was Roosevelt for a fourth term. But there was a question about the vice-presidential candidate. Machine bosses—Frank Hague of Jersey City, Ed Flynn of the Bronx, Ed Kelly of Chicago, and Robert Hannigan of St. Louis—persuaded the President in a secret White House conference before the convention that Henry Wallace, if renominated, might alienate enough votes to lose the election, while Senator Harry S. Truman of Missouri, who had won nation-wide recognition as chairman of the Senate Committee that investigated war contracts, was the choice.

Governor Thomas E. Dewey of New York easily won the Republican nomination. His leading rival, Governor John W. Bricker of Ohio, was chosen as vice-presidential candidate.

The election was hotly contested. The war undoubtedly saved Roosevelt. Democrats emphasized strongly the need to continue the President in office to win the war. His vote was two million less than four years before. Dewey polled almost the same vote as had Willkie.

Soon after his fourth term began, Roosevelt made a gesture in the direction of the labor-liberal forces in the party by appointing Henry Wallace, who had campaigned actively and energetically for his election despite being dropped from the ticket, as Secretary of Commerce to replace Jesse Jones, who was summarily retired.

In the climax of the victorious advance of our armies Roosevelt died suddenly, April 12, 1945, only a few months after he had started his fourth term.

Truman was thrust into the Presidency in circumstances perhaps the most trying since Johnson had succeeded Lincoln—in the midst of a great war, and with a Congress in which the progressivism to which he had given support when he was a member of the Senate was now but a minority influence.

He inherited the reservoir of cooperation on the war and on postwar international organization that Roosevelt and former Secretary of State Cordell Hull had carefully built up in Congress as a whole, in the Senate in particular.

Truman continued and nurtured this liaison. He included Republican leaders of Congress, and frequently outside of Congress, in the various delegations to international conferences, beginning with the San Francisco conference, called by Roosevelt, which met only a few weeks after Truman had become President, and from which came the United Nations Organization. This bipartisan cooperation was decisive in the subsequent, almost unanimous, ratification by the Senate of the U.N.

Truman adopted the Roosevelt domestic program but he was stymied by Congress. There was one exception, the so-called full employment bill. Congress eventually passed a much watered-down version providing for a three-member Council of Economic Advisers to keep the President informed on economic conditions, and required the Executive to submit an annual message to Congress with recommendations for legislation to keep the economy

in balance and also with provision for periodic reports to Congress on changes in the economic condition, if the President deemed such necessary.

In accordance with the law, the President submitted his first economic report in January, 1947, to a Congress then controlled by Republicans, but it was laid aside.

The President soon found himself completely on the defensive on all fronts. In mid-1946 he vetoed a bill that severely weakened OPA. Congress, lacking the votes to pass it over his veto, then passed another, not noticeably much better, which he signed under protest that it would not protect from inflation, a forecast that was exact and accurate. Then, with the Congressional elections coming on, he began to retreat. Republicans made an issue of OPA and other controls, and stirred up public clamor over controls on meat. Beef producers virtually went on strike for higher prices, holding their cattle off the market. Just a few days before the Congressional elections in November, 1946, the President abolished meat and other controls, thinking thereby the obvious tide toward the Republicans might be checked.

It did not work out that way. Republicans, in a landslide victory, captured both houses, thus giving the nation a divided government beginning with the Congress of January, 1947. Though the election undoubtedly reflected the usual postwar reaction from sacrifices, war restrictions, and regimentation, Republicans interpreted it as a "mandate" that the public was tired of the New Deal. During the campaign Republicans had blown up the issue of "communism" against the Administration, claiming that Communists were influential with the Administration. This seemingly found fertile ground in the growing anti-Russian feeling in the country.

Truman vetoed the Republicans' comprehensive labor regulatory bill that whittled away some of the gains for labor in the Wagner Act. But Congress passed the Taft-Hartley Act over the President's veto. Labor bitterly protested the law and laid plans to make it their leading issue in the next election.

The Republican Congress abolished virtually all remaining controls on housing that had been authorized the year before, leaving only rent control.

In the name of economy, the Republican House cut deeply the proposed appropriations for public power and reclamation projects in the West, but a howl arose and some funds were restored by the Senate.

The "communism" issue was carried over into the 80th Congress, manifesting itself in charges that Communists had jobs in government agencies. President Truman met the clamor by an executive order, known as the "loyalty" order, establishing a comprehensive mechanism for rechecking every government employee, an order criticized by liberal groups as not affording employees accused of disloyalty sufficient protection of their Constitutional rights and also for restrictions it placed on information about government activities which were described as an infringement on freedom of the press.

While President Truman advocated, in general, the Roosevelt New Deal program, his Administration took on a more conservative complexion through changes in the Cabinet and in the secondary posts which eliminated the aggressive and ardent New Deal type of administrators and replaced them with

more conservative figures, with the result that the attitude and approach was middle-of-the-road, rather than the progressivism of the Roosevelt era.

By Mark Sullivan

In the 1944 Democratic convention, a fourth nomination of Roosevelt was facilitated by what had helped toward his third. As in 1940 continuation of Roosevelt in the Presidency was said to be desirable because of the outbreak of the war in Europe. In 1944, the argument was strengthened by the fact that we were now in the war.

From the moment Mr. Truman succeeded to the Presidency, there was under way an acute eruption of a deep issue that perennially recurs, between the Executive and Legislative branches of government. Congress had become watchful about Roosevelt's power. During the last weeks of his life, it had withheld an emergency war power asked for, the authority to allocate manpower in industry. To most emergency war powers, Congress attached provisions giving that body, equally with the President, power to fix the date when the emergency would be legally terminated.

Of the cabinet President Truman inherited, several resigned or were let go. These included most of the strong New Dealers. The impression created was that Truman would take a conservative course. But among those Truman kept was Wallace, and a cabinet that included him could not be convincingly regarded as middle-of-the-road. In September, 1946, Wallace, acting beyond his Commerce post, gave out a policy about Russia inconsistent with that of the State Department. Mr. Truman let him go.

The congressional elections of 1946 were, as normally, a contest between Republicans and Democrats, but they included a conflict within the Democratic party, between the wing symbolized by Wallace and old school Democrats. The Republicans won 246 in the House to the Democrats' 188. When, in a congressional election coming in the middle of a presidential term, the opposition party wins control of the House, it is by precedent supposed to augur that the party will win the ensuing presidential election.

1948-1960

By WILLIAM S. WHITE

Political Columnist, Washington Evening Star and Other Newspapers

The twelve-year span 1948-1960 saw all these things: The liquidation of the Roosevelt New Deal, the birth and demise of the Truman Fair Deal, and the development of an extraordinary new kind of politics in the two Presidential administrations of Dwight D. Eisenhower.

Few periods in all American history have brought so much change, such wide swings of the pendulum of popular feeling and national mood. Truman's election to his first—and only—full term as President was perhaps the greatest political upset since the founding of the Republic. His grip upon his own Democratic party, particularly in Congress, had progressively weakened all through the interim period while he held office as successor to the dead Franklin D. Roosevelt.

The Democratic national convention which nominated Mr. Truman to succeed himself in the summer of 1948 at Philadelphia was far from enchanted with him. Oddly enough, the more liberal Democrats were especially cool. They tried in vain to find a means to sidetrack him, a sitting President though he was, and to choose instead the then General of the Army Dwight D. Eisenhower.

That Mr. Truman was selected at all probably was due more to the diffused nature of his opposition than to any other factor save that he was, after all, already President of the U. S. and thus unarguably entitled to renomination in the American political tradition.

But once nominated, with Senator Alben W. Barkley of Kentucky as his running mate for Vice President, Mr. Truman proceeded to do the thing that made him famous—to “give ‘em hell!” He ran a poorly financed but immensely spirited campaign against the complacent and even smug campaign of his Republican opponent, former Governor Thomas E. Dewey of New York.

Pundits and pollsters were unanimous that Harry Truman had no chance at all. He confounded all the experts by winning anyhow. He got 303 electoral votes to 189 for Dewey and 39 for the “Dixiecrat” third-party choice, J. Strom Thurmond of South Carolina. Truman brought victory out of defeat largely by his indomitable personality and by his endless attacks on the Republican 80th Congress. This he called a “do-nothing” Congress—the “worst” we ever had had.

Though later events were to show that he could not really control succeeding Congresses—though Democratic they were—his personal triumph was immense. The two greatest factors in his defeat of Dewey were these: (1) the Farm Belt was murmurous with resentment at Republican refusal to provide emergency storage bins for a heavy grain crop; (2) Negroes and other minority groups turned with passionate loyalty to Mr. Truman because, in the Democratic convention which had reluctantly nominated him, some of the Deep Southern extremists had walked out of the party over its civil-rights program.

Too, a great deal of “underdog” sympathy went to Mr. Truman, who remained chipper and combative under uniquely difficult circumstances. For while the “Dixiecrats” were deserting him on his right flank, the extreme liberal Democrats were deserting him on his left flank for the candidacy of Henry A. Wallace.

The Truman years were years of paradox. He had come to power with the personal background of a strictly local, domestic, and machine politician—and only by the accident of another man’s death. But in the terms of performance his era was an odd mixture of presidential futility at home—his domestic reform program got almost nowhere in Congress—but of enormous presidential success abroad.

The Truman Doctrine saved Greece and Turkey from Communist overthrow. The Marshall Plan set Western Europe back upon the road to restored economic and political health. Mr. Truman’s lonely and gallant decision to send our troops into Korea saved the United Nations from dissolution as an instrument for collective security.

Mainly because his domestic political base was always essentially a weak one, his administration was the most savagely assailed since that of Abraham Lincoln. Republican extremists like the late Senator Joseph R. McCarthy of Wisconsin, often assisted by far less opportunistic Republicans, raised a clamor that the Truman administration was "soft on communism," both at home and abroad.

Meanwhile Mr. Truman's unusual devotion to old friends and associates led him steadfastly to support and unwisely to retain minor administration figures who were accused, fairly or not, of corruption and "cronyism." At length, in the early spring of 1952, Mr. Truman decided not to run again and thus left the field open to Adlai E. Stevenson of Illinois. "Trumanism" was in fact the principal Republican issue in that campaign. The strange thing about it all was that the Truman administration was repudiated, and Mr. Stevenson himself fatally harmed, on two mutually exclusive grounds: That Mr. Truman was "too soft" on communism; and that he had persisted so long, in a bloody war, in killing Communists in Korea.

Nonpartisan observers agreed at the time—and many responsible Republicans agreed, too, in the afterglow—that the sort of partisanship shown by many of the Republicans over the Korean war, while it was still in progress, was deeply damaging to the national interests.

The fact, at any rate, was that the supposed parochial politician, Harry S. Truman, was a failure as a domestic politician—and a world figure of heroic proportions. Almost beyond doubt it was he who first halted the postwar march of aggressive international communism.

At all events, the 1952 presidential campaign was all but won by the Republicans before it began. After a great struggle between the "modern" or pro-Eisenhower Republicans and the Old Guard Republicans, General Eisenhower was nominated over the late Senator Robert A. Taft of Ohio.

The Democratic candidate, Mr. Stevenson, set out with insuperable handicaps. A great part of the country—including millions of Democrats, for that matter—really did feel, in the words of the GOP slogan, that it was "time for a change." Twenty years of Democratic rule of the White House, beginning in a great depression and ending at the close of a great war, had sated the country. It sought a time of quiet. General Eisenhower, too, was a towering war hero and infinitely better known than any Democrat apart from the retiring President Truman.

Mr. Stevenson himself gave some color to the Republican charges against Mr. Truman by first drawing himself noticeably away from the man who still occupied the White House. Truman for his part went out whistle-stopping to try to help Stevenson. But, in all the circumstances, nothing could really have helped much. Mr. Eisenhower broke heavily into the erstwhile Solid South. He won election by a landslide total of 442 electoral votes to 89 for Stevenson. It was, actually, more a coalition victory than a party victory. And this fact had much to do with the whole subsequent tone of the Eisenhower administration.

President Eisenhower entered office, symbolically, as a kindly, relaxed,

largely unpartisan, and nonpolitical national leader. On the whole this image was maintained to the end. While his party had narrowly captured Congress in his first election, it lost Congress only two years later, in the 1954 congressional elections, and never regained it throughout his tenure.

Thus, no doubt partly because no other course was really open to him, Mr. Eisenhower set out on a long period of cooperative relations with Democratic Congresses and especially their leaders, Senator Lyndon B. Johnson of Texas and Speaker of the House Sam Rayburn, also of Texas.

The country became accustomed to seeing this kind of divided government—a Republican White House and a Democratic Congress—and liked what it saw. Though Mr. Eisenhower was overwhelmingly re-elected in 1956, again over Mr. Stevenson and by an electoral-vote score of 457 to 73, the Republicans that year again lost Congress to the Democrats. And in the 1958 congressional elections, the story was the same.

The Eisenhower era was a time of accommodation, of compromise, and of the restoration of good feeling within the country after the harsh passions of the McCarthy-Republican period. Mr. Eisenhower sometimes criticized Mr. McCarthy, but never strongly and never consistently and never when to do so would be to break with any large number of other Republicans in a campaign season.

All the same, the general Eisenhower attitudes—of an amiable rather than a demanding leadership, of a long, determined search for a settlement of the cold war with Russia, of a powerful personal appeal to the country—themselves formed a significant chapter in the country's long political life.

And these attitudes left for the future great and unanswerable questions: Had the old, sharp edges of political partisanship been more or less permanently filed away by a system of government-by-accommodations? Were issues hereafter to be blander and fuzzier than we had ever known before? And, if so, was all this more good than bad, or more bad than good?

INFLATION

By WILLIAM McCHESNEY MARTIN, JR.

Chairman, Board of Governors of the Federal Reserve System

People may choose different words to define inflation, but basically the thing we all have in mind is a decline in the value of our money. This is, of course, the same thing as a general increase in prices. Most of us can recall periods in our lifetime when prices increased quite rapidly in the United States and when they have sky-rocketed in other countries.

Rapid or runaway inflation has generally been associated with major wars. During World War I, prices in the United States doubled, or conversely, the purchasing power of money was cut in half. As many readers will remember, the German mark became worthless after the war and the French franc declined to a small fraction of its prewar value. From the beginning of World War II to mid-1948, prices in this country increased about three-fourths. They

moved up again rapidly, but for a comparatively brief period, when fighting broke out in Korea in 1950. The thing that concerns us all is that for almost 10 years the trend of prices has been generally upward even though we have not been engaged in any major conflict. This recent experience has led some people to the erroneous conclusion that inflation is inevitable, even in peacetime.

Fundamentally, the maintenance of a sound dollar depends on our ability to live within our means, as a nation. This does not mean that each individual, each company, or even the Government itself must always have a balanced budget. It means that some people in the community must be saving as much as others are borrowing. Young families and growing new business enterprises, for example, will typically spend more than their current income, while other groups will spend less and add to their savings. Such saving and borrowing is a part of the process by which a free enterprise economy grows and increases its capacity to produce the goods and services that go to make up a higher standard of living.

If we add money created by bank credit expansion to the stream of real savings, this produces inflationary pressures. In a depression these pressures may be offset by other forces of a deflationary character and the net effect may be to ease the severity of the decline. But in prosperous times bank credit expansion adds to total spending without causing a comparable increase in output and the inevitable result is increased prices and a decline in the value of our dollars.

Perhaps a special word needs to be said on Government spending and particularly spending by the Federal Government. In terms of its inflationary impact, Government spending is not essentially different from any other spending. The main reason that it gives us so much concern is that the amounts involved are so large. The Federal budget runs in the neighborhood of \$80 billion and in the fiscal year 1959 we had a deficit of over \$12 billion. Even in a country as large and as rich as ours, if the Government is a substantial borrower; at the same time that demands for funds are strong from both consumers and businesses, it adds considerably to the pressures which push up the rate of interest for all borrowers and make it difficult to prevent the over-rapid expansion of money and credit. For this reason it is important that in prosperous times the Federal Government operate with a balanced budget, and preferably some surplus. It does not follow from this that we should not carry forward any particular program or programs, whether they are directed toward social welfare or some other worthwhile objective. We simply must not indulge in self-deception as to the cost involved and we must be prepared to finance all of our expenditures in a sound way.

Few people would contend that inflation is a good thing. The injustices to savers and those who have comparatively fixed incomes are too obvious. Some argue, however, that a little inflation is not so bad and that it may, in fact, help us grow and speed up the accomplishment of social goals that they regard as desirable. The important fact that these people overlook is that our growth as a nation and, in fact, our progress in the very areas they often

have in mind, such as housing, schools, and highways, depends basically on saving.

Anything we do which cheats savers by depreciating the value of the money they have saved is not only unfair to them but will cause people to be less willing to save in the future. In this way inflation operates to reduce the amount of money that is available to build all the things that add to the productivity of our economy and our standard of living.

The fact that we have exercised some restraint during the past year, in our expenditure programs and in our monetary policy, enhances the chances that 1960 will be a year in which neither the fact nor the expectation of inflation will be a major national problem. Certainly no one could hope for such a development more sincerely than the Board of Governors of the Federal Reserve System. But while we can all be hopeful we must also be realistic, for this is not an abstract issue but a real, practical problem. To ignore the potential threat of inflation in 1960 would be as foolhardy as to pretend that Soviet Russia did not exist.

Any presumed benefits that flow from inflation are based on self-deception. We will certainly grow faster and stronger if we do not pretend that we can enrich ourselves by depreciating our currency. Stable prices and a sound currency that both we and the rest of the world can rely upon is the only goal that is morally and economically defensible. To strive for anything less would be to admit that we do not have the courage as a nation to face our financial problems honestly and deal with them realistically.

A NEW LOOK AT INFLATION

By LEON H. KEYSERLING

Former Chairman, Council of Economic Advisers of Truman Administration

Inflation means rising prices, a decline in the purchasing power of the dollar. To understand the significance of inflation, we must understand the significance of price trends in achieving the basic purposes of our economic life.

Our basic economic purposes

These basic purposes are: *first*, to maintain full employment of ever-enlarging manpower, plant, and technology, and thus to maintain optimum economic growth; *second*, to apportion production wisely, so that we meet first needs first; *third*, to achieve economic justice.

None of these basic purposes is automatically served by a rising or stable or falling price level. It follows that to treat price trends as an end in themselves, rather than to test them as a means toward other ends, yields very damaging results.

Significant periods in our recent history are illustrative.

Wartime inflation

During the World War II years 1939–1945, we needed to expand production, and did, at the phenomenal average annual rate of more than 9%, or about twice the optimum rate for more normal times. The war also made

it essential to run Federal budget deficits averaging \$60 billion a year. These intense pressures generated an average annual inflation of consumer prices of 4.5%. The penalty for maintaining absolute price stability would have been a much lower level of economic and military exertion, at the risk of losing the war.

Progress without inflation

During the period 1952–55, our economy grew at an average annual rate of 3.5%, a moderately rewarding though not entirely satisfactory rate of economic progress. During these years, the average size of the Federal budget deficit was \$6.5 billion. These outlays helped to sustain economic growth, and also helped to service our essential needs. But during this period, despite economic growth and budget deficits, there was virtual price stability, the average annual increase in consumer prices being only 0.3%.

Inflation without progress

The third period to be considered is the period 1955–57, characterized by the so-called “new inflation.” During this period, the average annual growth in our economy was only 1.7%, or very far short of the 4–5% needed growth rate. Unemployment of plant and manpower accumulated. The Federal budget showed an average annual surplus of \$1.7 billion, but this was accompanied by gross neglect of the great priorities of our domestic and international needs. By the test of economic justice, increasing portions of the population—farmers, small businessmen, and many workers—received nowhere near their fair share of an inadequate total national income. But during this period, consumer prices rose at an average annual rate of 2.5%. And during the period 1957–58, when our economy as a whole receded about 3%, consumer prices rose 2.7%. Thus, stagnation and recession during the period 1955–58 have averaged the fastest price increases ever in relative peacetime.

The lesson to be learned

Just as an automobile burns more gas per mile, and therefore operates “inefficiently,” when it is running either at excessive speed or at very low speed, so the American economy operates inefficiently and generates more inflation when it is running either under the forced pressures of wartime *or at the deficient speed of recent years*. Correspondingly, the excessively tight budgetary and monetary policies, which impair optimum economic growth, sacrifice the great priorities of our national needs and militate against economic justice, are also inflationary.

In addition, most basic industries in our economy “administer” their prices; that is, they deliberately fix their prices to achieve desired profit objectives, instead of their prices being responsive to the so-called law of supply and demand. Thus, when national economic policies conspire to repress the total volume of production and sales, these industries have tended to raise their prices even faster than when the economy as a whole was performing more satisfactorily.

Generally speaking, wage increases have been insufficient to help maintain

optimum economic growth, and thereby to help maintain price stability. Wage increases have been used as a pretext for inordinate price increases. These, by causing periodic overexpansion of profits and investment in the means of production relative to consumption, explain the two cycles of boom, stagnation, and recession since the end of the Korean war. These cycles have defeated the three great purposes of our economic life, and have been inflationary.

What we need to do

In view of our rapidly rising technology, we need and can afford a much higher rate of economic growth than we have been achieving since the end of the Korean war; a much more rapid rise in wages, farm incomes, and general living standards; a pronounced strengthening of social security and other welfare measures; and a vast enlargement of public spending, especially at the Federal level, for essential domestic and international priorities. A fully expanding economy would also balance the Federal budget, even with adequate public outlays. The effort to balance the Federal budget by hurting the whole economy has resulted ultimately in by far the biggest Federal deficit ever experienced in relative peacetime.

Moreover, the current fear of substantial or "galloping" inflation is utterly unwarranted. The American economy in the long run has not been prone to price inflation, except under conditions occasioned by actual war. During the 36-year period 1922–1958, excluding only the years of World War II and reconversion therefrom (1939–1948) and the first two years of the Korean war (1950–1951), the average annual trend in prices was slightly *downward*; and even if (to be entirely fair) the great price collapse of the depression years 1929–1933 are also excluded, the annual average for the other 21 years was very close to absolute price stability.

Thus, the recent and current "crusade against inflation" has in part reflected outmoded economics, and in part served as a spurious *rationale* for reactionary economic policies. When we substitute objective analysis for superstition and propaganda, it becomes clear that we shall make a far better record of price stability when we cease to default as a nation with respect to the three basic purposes of our economic life.

LEGISLATIVE RECORD OF THE 86TH CONGRESS

A REPUBLICAN PARTY LEADER'S ANALYSIS

By SENATOR EVERETT MCKINLEY DIRKSEN

Minority Floor Leader, United States Senate

I think it is indeed unfortunate that in this critical period of world history the United States has been plagued by a divided Government in which executive responsibilities are in the hands of the Republicans and legislative responsibilities are in the hands of the Democrats.

Still, in spite of this unhappy situation, a substantial record of accomplishment has been achieved, and this attests to the patriotism and inherent common sense of the Congress.

Immediately following the 1958 elections, certain groups attempted to take credit for the election of a Democratic Congress. Few believed that the first session of the 86th Congress would produce effective, constructive labor legislation which had been bitterly opposed by those labor bosses who had infiltrated the Democratic Party. It is significant that the conference report on the Labor-Management Reporting and Disclosure Act of 1959 was adopted in the Senate by a vote of 95 to 2, and in the House by a vote of 352 to 52. Thirty-three Republican Senators supported this measure and 138 Republican Members of the House of Representatives.

At the beginning of the year the President presented a program sensibly meeting the Nation's needs for necessary Government services within a balanced budget. He stated that in his view our economy was expanding at a rate that made inflation, not recession, our greatest internal danger.

The leaders of the Congressional majority, on the other hand, declared that the people had given them a mandate to embark on a variety of grandiose federal spending. This resulted in 20 big spending bills totalling \$194.1 billion being introduced in the House and others in the Senate.

The session was but a few weeks old when events on Capitol Hill began to bear out the President's wisdom.

Through a firm approach to our legislative needs, through principled use of eight vetoes of major legislation and through frank discussion of our Government's problems before the people, President Eisenhower persuaded Congress to adopt a moderate legislative course, aimed at preserving the value of the dollar, giving momentum to the forces which would assure prosperity, and meeting the challenges at home and abroad.

Suffering only two real defeats—the failure to confirm Lewis Strauss as Secretary of Commerce and the overriding of his veto on the second public works bill—the President's efforts resulted in laws which will continue the Nation's growth without endangering our fiscal integrity.

Topping the list of Congressional achievements, of course, is the labor-management reform bill.

The President vetoed the first two Congressional efforts to enact housing legislation bills which were unsound and excessive. Congress then delivered a bill which provided the essentials of the Nation's housing and urban renewal needs without the excessive spending of its predecessors.

Other spending measures experienced a similar fate. Aid to airports is an example where a 4-year, \$465,000,000 bill was cut to a 2-year \$126,000,000 bill, retaining the air safety features but reducing the expensive aid for lounges and restaurants in terminals.

A highway bill passed towards the close of the session. Though the Congress at one time considered financing the program through borrowing, it eventually voted a one-cent increase in the gasoline tax, keeping the program

going on the sound pay-as-you-go basis that was requested by the President.

Other examples of the President's strength came on vetoes of wheat and tobacco support bills passed by Congress. Reasonable farm legislation to reduce the surplus problem as advocated by the President is a must for 1960.

Of over-all interest is a review of the appropriations passed. Following much talk of free spending and deficit financing, the Congress actually reduced Presidential estimates in all areas except health and public works. The Congress listened to the demands from back home for economy and prudence in Federal spending.

Congress also extended the life of the Civil Rights Commission, but has left much unfinished business in the field of civil rights.

Congress gave wholehearted support to the President's foreign policy, endorsing his stand on Berlin and his Geneva negotiations for nuclear weapon control.

Among other major actions by Congress in the past session were Statehood for Hawaii, legislation dealing with TVA financing, and legislation resolving taxation problems among the States with respect to interstate commerce.

Despite these accomplishments, Congress left much major work to be done in the next session. Congress must consider:

- (1) Civil rights legislation to guarantee equal rights and opportunities.
- (2) An overhaul of obsolete and expensive agricultural support laws.
- (3) A realistic adjustment of the interest rate ceilings for financing the national debt.
- (4) The President's proposal for aiding local school districts without interfering with local control of education.

If Congress did nothing else in the entire session other than slow down the drive to spend the taxpayers' money and enact a labor bill to protect the worker, the small businessman, and the public, its achievement would be noteworthy.

A survey of the course pursued by the Republican party in the House and Senate and of the legislative achievements of the First Session of the 86th Congress will, I believe, justify the following conclusions:

- (1) The Administration and the party course of action was indeed responsive to the desires and the interests of the people of this country.
- (2) Considering a party platform as a suggested course of action these achievements are quite in harmony with the platform pledges made to the people by the Eisenhower Administration in 1956.

ANOTHER REPUBLICAN SENATOR'S POINT OF VIEW

By SENATOR GEORGE D. AIKEN

United States Senator from Vermont

As a Republican who has not always seen eye to eye with the recommendations of the Administration, I am not wholly disappointed with the results of the late session of the Congress.

It is true that Congress enacted little in the way of new basic legislation and took an unwarranted and unnecessary length of time to do that. Consideration was given largely to the extension of existing programs and, in some instances, to their expansion.

The admission of Hawaii to the Union and the enactment of a labor law, which certainly is not going to revolutionize labor practices, may be considered about the only pieces of basic legislation enacted.

However, Congress should not always be judged on the amount of legislation it turns out. Sometimes the country is entitled to a breathing spell from radically new laws.

Certainly, with the economy of the country in the condition it has been in this year, there was little prospect and no pressing need for emergency legislation such as was proposed by the Democrats at the beginning of the session.

The fact is that except for a slight recession in 1958, the economy of the country has been very high under a Republican Administration—so high, in fact, that the Democratic leadership made little effort to promote its emergency legislation.

The Democratic majority in Congress was top heavy, the enlargement of committees was time-consuming, and the legislative processes were long drawn out. At the end of the session, it was obvious that the Republican Party had been the gainer, while much Democratic prestige, which existed at the beginning of the session, had become dissipated.

At the very beginning of the session, a contest for leadership developed within the Republican Party. The contest was held in the open with no agreements being reached in secret.

As a result of this open contest, all major viewpoints are well represented in party councils. It is traditional that Republican members of the Senate cannot be lined up to vote against their convictions. Nevertheless, there is greater unity within the Party today than at any time in the past twenty years.

Although some Republicans feel that the Administration could well put greater emphasis upon domestic programs, yet we generally agree that under President Eisenhower the international picture has become brighter.

Never before has there been such a flow and interchange of views between our Nation and the rest of the world as there is today. Never before has there been created such a desire on the part of all people to find the formula for preventing war. We have shared our prosperity with the rest of the world and, in so doing, have enhanced our own economic conditions. The foreign aid situation now calls for close scrutiny and guidance, which I believe the present Administration intends to provide.

With a National election coming up, the second session of the 86th Congress will be replete with political implications and maneuvers.

The Democratic Congress will undoubtedly send the President bills which he should not and will not sign.

The White House will continue to make a near fetish out of balancing the budget to the detriment of certain domestic programs.

The country will continue to be strong economically, militarily, and politically and, barring man-made or natural disaster, the general condition should be good.

A DEMOCRATIC PARTY LEADER'S ANALYSIS

By SENATOR MIKE MANSFIELD

Assistant Senate Democratic Leader

The record of the first session of the 86th Congress is not as good as we Democrats would like it to be. But it is a solid and responsible record responsive to the needs of the country.

Much remains to be done. We will make up in the next session what we were unable to do in the first—and then the record of the 86th Congress will be even more noteworthy.

The record of the first session, in itself, is enough to dispose of the feeble and shoddy Republican charges, which, I am sure, are not shared in by Republican leaders in Congress, that this was a “won’t do” Congress.

Even if much that we had hoped to do was left undone, the list of achievements is impressive:

Admission of Hawaii as the fiftieth state; the passage of a reasonably good labor law; the increase in funds beyond what the President recommended for the health and welfare of our people; the provision in the public-works bill, finally passed over the Presidential veto, for sixty-seven new starts on reclamation and other projects that will insure the continued development of our natural resources; and the reduction of the President’s foreign-aid budget without any resulting impairment in the program.

Particular note should be made that the Democratic leadership carried out its promise that the overall appropriation would be less, not more, than what the President recommended. In all, the Congress reduced the President’s budget and various Administration proposals for back-door financing by a total of \$2.5 billion. These reductions were carried out, it should be emphasized, without impairing any vital program and while providing in some instances for the expansion of programs, as previously noted, to meet the needs of the people.

We had hoped to get a good civil-rights bill. We failed there and all we got was an extension of the Civil Rights Commission. The housing bill, twice vetoed by the President, was not all we wanted, but it provides the basis for carrying on sound and essential programs.

All in all, it is a record of accomplishments along moderate lines, the achievement of the possible, and the avoidance of issues for the sake of politics.

The record would be even more impressive had it not been for the Presidential vetoes and the constant threat that the vetoes would be used. Inevitably this had an effect in a Congress where the responsible Democratic leadership was striving to have enacted a constructive program.

One thing ought to be kept in mind. The record of a Congress should be measured not in the quantity but in the quality of the legislation enacted. In

this respect, the record of the first session of Congress more than meets the test.

The record made thus far is in line with the pledges contained in the Democratic platform. However, the final evaluation must await the outcome of the second session. The record of the 85th Congress, with its high achievements, and the record of the 86th Congress, when it is finally completed, will be found, I am confident, to have carried out substantially the Democratic platform adopted at the 1956 convention.

The issue has been raised during this year of fiscal responsibility. An effort has been made by the Republican Administration to label the Democrats as spenders.

The record should speak for itself. That record shows that for the last fiscal year the President requested a record-breaking peacetime budget, which resulted in a deficit of \$12.5 billion. In a recent statement the President forecasted a surplus for the current fiscal year of \$100 million. A week later his budget director revised this downward to \$95 million.

Due to the steel strike and other factors, the Administration will be lucky if it winds up the fiscal year with a deficit of no more than \$2-3 billion.

The record will show that under the leadership of Senator Lyndon B. Johnson and Speaker Sam Rayburn, the Democratic Congresses over the last five years have reduced the budget submitted by President Eisenhower by a total of \$12.5 billion.

If the tag of spenders should be applied to anyone, it should be applied to the Administration.

ANOTHER DEMOCRATIC SENATOR'S POINT OF VIEW

By SENATOR JOSEPH S. CLARK, JR.

United States Senator from Pennsylvania

The record of the first session of the 86th Congress is not so bad as it appears at first glance, nor so good as it should have been. If the overwhelming Democratic congressional victory at the polls in November, 1958, and the Democratic platform written at the last presidential convention in 1956 are used as touchstones for measuring the achievements of the 86th Congress to date, we obviously have not yet fulfilled a good many of our promises. There is still the second session, of course, to improve upon that record.

Any measure of what we have accomplished in 1959 must include a consideration of the major obstacles which prevented us from writing a better legislative record. These were:

First, it should be understood that national leadership and the galvanization of national purpose can come only from the President.

Second, by any fair measure of the country's needs, the President's legislative program was hopelessly inadequate, if not obsolete.

Third, the extensive use of the veto by the President, both as a weapon and as a threat, nullified the possibility of an across-the-board Democratic legislative program since the Democratic party does not comprise two-thirds of the membership of either House, necessary to override vetoes.

Fourth, the President's obsession with fiscal bookkeeping, aided and abetted

by an ill-informed scare-campaign on the part of most of the mass media of communication, shifted public interest to an undue concern for a balanced budget and away from the concern the voters expressed regarding our national needs in the November, 1958, election.

Despite these handicaps, the Democratic party in Congress, and especially in the Senate, did succeed in passing significant legislation: an omnibus housing bill, drastically cut because of vetoes; a public-works bill, whittled down because of vetoes; an airport bill, slashed because of the previous veto; a coal-research bill; a labor-reform bill; statehood for Hawaii; extension of the Mutual Security Program; a self-financing program for TVA; extension of the highway program; and a long list of less important bills.

The Democrats in Congress wisely refused to concur in higher interest rate ceilings on long-term government bonds, and consistently opposed the high-interest, tight-money policy which is choking economic growth and thereby contributing to high unemployment.

There will also be concrete action in the next session on additional vital programs: Federal aid to education; an increase in the minimum wage; national unemployment compensation standards; legislation to cope with prolonged strikes in industry affecting the national security; and substantive civil-rights legislation.

Thus, if the President wants the legislation to protect human rights and remedy the obsolescence in the public sector of our economy, he can certainly have it. But this kind of leadership from the President has not been forthcoming, and there is no reason to believe he will not continue to oppose Democratic programs.

The question which confronted the Democratic party in 1959, then, will continue to plague us in 1960: What should we in Congress do?

I believe we must honor our platform pledges of 1956 and the will of the American people the last time they went to the polls. We must offer and pass, if we can, a realistic, Democratic legislative program for the second half of the twentieth century. We must frankly make a Democratic party record with which to go to the people in 1960. We must offer concrete alternatives to the stagnation and drift of the last seven years.

I do not believe we should compromise our legislative goals in advance of an overt attempt to have our own programs. In 1959, we did not as a party push our own program hard enough. The obstacles to real legislative progress in 1959 will not go away in 1960. The President is still in the driver's seat, but perhaps the Democratic party in Congress in 1960 will give him a better run for his money. I certainly hope so.

BIG DEMOCRATIC MAJORITY vs. THE COALITION, 86th CONGRESS

By CHARLES B. SEIB

National Editor, Washington Evening Star

When the 86th Congress convened last January 7 there were predictions of dire times ahead for President Eisenhower. Not only did the Democrats

control both houses—as they had in the two previous Congresses—but, strengthened by the 1958 elections, they controlled them by very close to two-thirds majorities. To be exact, there were 64 Democrats and 34 Republicans in the Senate (this became 65 Democrats and 35 Republicans when Hawaii's Senators were sworn in August 24) and 283 Democrats and 153 Republicans in the House (Hawaii sent a Democrat to the House but one Democratic vacancy caused by death was not filled so the total membership at the close of the session remained 283 and 153).

This tremendous margin of control, plus the erosion of the President's power due to the 22nd Amendment's guarantee that he would not run for a third term, encouraged expectations that the Democrats would be riding high, wide, and handsome throughout the session. On the opening day of the session, Senate Democratic Leader Lyndon Johnson told his forces that they now had "a mandate for confident and creative and constructive leadership."

But when the 86th Congress adjourned its first session on September 15, the record showed that President Eisenhower's legislative program had done amazingly well. While many of the toughest issues were put over until the second session, the President came out ahead on most of those on which action was taken. Major accomplishments, from the administration point of view, were passage of a strong labor reform bill, admission of Hawaii to the Union and an increase in the Federal gasoline tax. The only really major setbacks were the refusal of Congress to permit an increase in the interest rate on long-term government bonds and passage over the President's veto of a public works bill.

There were three interdependent reasons for the failure of the Democrats to capitalize fully on their great strength. First, the President took a more militant interest in his legislative program than he had in the past, concentrating on his determination to thwart the "spenders" and maintain the "fiscal integrity" of the government. It became clear as the session progressed that a good many Democrats decided he had public backing and that heavy spending was bad political medicine. In fact, on occasion it seemed as though they were trying to outdo the administration on economizing.

Second, the ascendancy of two clever, hard-working conservative politicians—Senator Everett McKinley Dirksen of Illinois and Representative Charles A. Halleck of Indiana—to the G.O.P. leadership in their respective houses revitalized the Republican organization on Capitol Hill. Third, a coalition of conservative Republicans and Southern Democrats became a powerful and sometimes deciding force, particularly in the House, where it was nurtured and guided by Mr. Halleck.

These three factors combined to balance the Democratic numerical strength and to force Senator Johnson and Speaker Sam Rayburn to trim their sails and even retreat.

For the interested citizen, the whole performance pointed up the fact that bare figures on party membership in Congress are becoming less and less important. Each party has strongly liberal and strongly conservative blocs and

the outcome on an issue often will be determined by an alignment of those blocs with little or no regard for party lines.

A perfect example of the power of the conservative Republican-Southern Democrat coalition is provided in the House action which brought about passage of a much tougher labor reform bill than had been expected. That was the August 13 vote to substitute the Landrum-Griffin bill for a milder version approved by the House Labor Committee. The substitute passed 229 to 201 and eventually became, with some modification, the bill signed into law by the President.

The coalition's role becomes clear in a breakdown of the voting—95 Democrats and 134 Republicans supported the bill; 184 Democrats and 17 Republicans opposed it. And 80 of those 95 Democrats were from these ten Southern states: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia. The figure becomes especially impressive when it is realized that the total Democratic membership from those ten states is only 92.

An even more striking picture of how party lines can be broken can be gained from a tally of individual votes on the Landrum-Griffith bill. It shows, for example, that all seven Democrats from Florida and all nine from Georgia voted for the bill while all 11 Democrats from California and all six from Connecticut voted "nay."

The coalition operates in the Senate, too. For example, nine of the ten Democrats who voted to support the President on the first attempt to override his Housing Bill veto and eight of the nine who voted with him on the second attempt were from the ten Southern states listed. Had all nine of those southerners voted against the President in the first vote, his veto would have been overridden. Or had just five of the eight voted with their Democratic colleagues in the second vote, he would have lost. As it was, the veto stood and Congress further modified its housing bill to give the President a version he was willing to sign.

The coalition operates effectively, of course, only when the issue is one on which conservatives can join forces. Many important issues are still decided on party votes, with the leadership of each party successfully keeping in line all but a few strays.

A good example of this was the House's refusal September 4 to permit the President to raise the interest rate on long-term United States securities over 4¼ per cent when he finds it to be in the national interest. That refusal—which the President later called "one of the most serious things that has happened to the United States in my time"—was by a 255 to 134 vote, with only three Democrats voting to support the President and only three Republicans voting against him. It doesn't take a political seer to recognize that the interest rate issue—which is tied in with "tight money" and inflation—is going to be important in the 1960 political campaigns.

See pages 7–8 for Test on Researching and Reviewing for which you can win a 20-volume set of the WORLD BOOK ENCYCLOPEDIA.

YOUR VOTE COUNTS

Prepared by THE AMERICAN HERITAGE FOUNDATION

JOHN C. CORNELIUS, President

One of the most precious privileges of American citizenship is voting by secret ballot in free elections. But when we Americans compare our voting record with that of other free countries, it comes as a shock to realize that our turnout at the polls is far below theirs. Here's the percentage of voters* who turned out in recent elections abroad:

Austria	95. %	Denmark	80.6%
Italy	93.8%	Korea	80. %
France	89. %	Norway	79.3%
Turkey	87.7%	England	78.7%
West Germany	86. %	Japan	75.8%
Greece	85. %	Finland	72. %
Indonesia	85. %	Canada	67. %
Israel	82.8%		

VOTING FOR PRESIDENTIAL ELECTION YEARS

Year	Civilian population of voting age	Total vote for President	Percentage of civilians of voting age
1920	61,495,000	26,813,000	43.6
1924	66,195,000	29,091,000	43.9
1928	70,993,000	36,812,000	51.9
1932	75,671,000	39,751,000	52.5
1936	80,055,000	45,647,000	57.0
1940	84,319,000	49,820,000	59.1
1944	90,599,000	47,976,000	53.0
1948	94,877,000	48,834,000	51.5
1952	98,133,000	61,552,000	62.7
1956	102,743,000	62,027,000	60.4

Mere exhortation will not persuade a nonvoter to cast his ballot. It is essential that every potential voter feel a keen sense of involvement in the government process. A citizen who is convinced of the importance of his one vote is more likely to go to the polls than the skeptic or cynic who scoffs, "Of what use is my single vote?"

In 1944, Senator Taft carried Ohio by less than 1 vote per precinct. In 1954, Senator Neuberger of Oregon won by the same margin. In 1948, Senator Lyndon Johnson was sent to the Senate by a majority of 87 votes from the huge State of Texas.

In 1954, Governor Harriman of New York won by a shade more than 1 vote per precinct. In 1950, Governor Williams of Michigan was elected by less than 1 vote for every 3 precincts.

In 1948, President Truman carried California and Ohio by less than 1 vote per precinct and thereby won re-election to the highest office in the land.

* A number of countries have compulsory registration and voting laws—some with penalties, some without.

The same slim margin in the 1960 presidential election could again decide who will occupy the White House. Remember, every vote cast is a decisive vote. The votes that are NOT cast can be decisive, too. There have been demonstrable instances of a person being elected to office by a minority of those eligible to vote simply because too many people stayed away from the polls. The winner might otherwise have been beaten.

Another cause for nonvoting is outmoded election laws. Research by The American Heritage Foundation reveals that states that make it easier for citizens to register and vote get more of their citizens to the polls.

For example, in Idaho, voting champion among the states, 77.3% of the voting population went to the polls in 1956. Idaho voters enjoy permanent registration and are allowed to register up to three days before an election. Only six months residency in the state and 30 days in the county are required.

On the other hand, consider Mississippi, which had the poorest voting record in the 1956 elections—22.1%. Mississippi requires two years' residence in the state; makes payment of poll tax a condition for civilian voting; and does not allow registration after the first week of July. It also imposes a literacy test that requires voters "to read, write, and interpret reasonably any section of the State Constitution"—a requirement susceptible to discrimination on the part of examiners.

How The States Ranked in Percentage of Civilians of Voting Age Who Cast Ballots in the 1956 Presidential Election

Rank	State	Percentage	Rank	State	Percentage
1	Idaho	77.3	25	Wisconsin	66.6
2	Connecticut	76.6	26	Nebraska	65.9
3	Utah	76.1	27	New York	65.5
4	Massachusetts	75.3	28	Pennsylvania	65.0
5	New Hampshire	75.2	29	California	65.0
6	Rhode Island	74.6	30	Ohio	64.9
7	Iowa	74.1	31	Nevada	64.7
8	Illinois	72.5	32	Maine	64.6
9	Indiana	72.4	33	Oklahoma	64.0
10	West Virginia	72.4	34	New Mexico	62.1
11	Montana	72.3	35	Kentucky	56.7
12	South Dakota	72.2	36	Maryland	54.8
13	Delaware	71.5	37	Arizona	49.7
14	Washington	71.4	38	Florida	48.3
15	New Jersey	70.1	39	North Carolina	47.7
16	Colorado	69.6	40	Tennessee	46.0
17	Wyoming	68.9	41	Arkansas	39.9
18	Vermont	68.6	42	Texas	38.1
19	Oregon	68.5	43	Louisiana	37.3
20	Minnesota	67.8	44	Virginia	34.2
21	Kansas	67.7	45	Georgia	30.4
22	Missouri	67.5	46	Alabama	28.5
23	Michigan	67.1	47	South Carolina	24.6
24	North Dakota	67.0	48	Mississippi	22.1

NATIONAL AVERAGE 60.4

Let us analyze the table of percentage of voters by states (page 85) as compiled by The American Heritage Foundation.

The top eight states have laws that make it easier for all citizens to register and vote than the bottom eight.

The bottom eight include the five states (Alabama, Arkansas, Mississippi, Texas, and Virginia) where the payment of a poll tax is a prerequisite for voting. They include four (Alabama, Louisiana, Mississippi, and South Carolina) of the six states that do not permit civilians to vote by a mailed ballot. They include the four states that have demanded as much as two years of residence to qualify for voting (Alabama, Louisiana, Mississippi, and South Carolina). Since December of 1957, Louisiana's residence requirement has been one year. These, too, are the states with the most difficult literacy tests as a qualification for registration.

Two other factors in the nonvoting picture are the one-party system in some states and the long ballot. Total vote in the one-party states is often larger in the primary than in the election itself, since the primary is decisive. Long ballots often confuse voters and discourage them from going to the polls. For example, the ballot in a recent local election contained 169 names.

NEED FOR UP-DATING OUT-MODED ELECTION LAWS

In 1956 at the presidential election only six of every ten citizens of voting age cast a ballot. There were 102,743,000 citizens of voting age; only 62,027,040 voted. Of the 40,715,960 citizens of voting age who failed to vote in 1956, The American Heritage Foundation estimates that more than six million citizens were disfranchised because of moving and thereby failing to meet the residential requirement for registration.

Also many states make no provision for absentee ballots by the hospitalized and physically disabled. Some five million Americans were thus kept from the polls in 1956. It is also estimated that approximately 2,600,000 travelers were prevented from voting because they had no way of obtaining absentee ballots.

YOUNG VOTERS

Americans between the ages of 21 and 29 have the poorest voting record. A way to prepare young voters in advance to accept the responsibilities of citizenship is to take our teenagers to the polls on Election Day so that they can see first-hand the election process in operation. True, the children cannot enter the voting booth, but they will see the people from every walk of life taking part in this basic act of American citizenship—and this experience could exert a wholesome influence for better personal citizenship that could last a lifetime.

Government is everybody's business, and informed voting is an effective way in which every citizen of voting age can help to keep this "government of the people, for the people, and by the people."

The Governors and Senators of the Fifty States

The years shown in parentheses are those of birth. Unless otherwise indicated, the Governor or Senator was born in the state in which he was elected to office.

State	Governor	Senior Senator	Junior Senator
Alabama.....	John Patterson, D (1921)	Lister Hill, D (1894)	John J. Sparkman, D (1899)
Alaska.....	William A. Egan, D (1914)	E. L. (Bob) Bartlett, D (1904) ¹	Ernest Gruening, D (1887) ²
Arizona.....	Paul J. Fannin, R (1907) ³	Carl Hayden; D (1877)	Barry Goldwater, R (1909)
Arkansas.....	Orval Faubus, D (1910)	John L. McClellan, D (1896)	J. W. Fulbright, D (1905) ⁴
California.....	Edmund G. Brown, D (1905)	Thomas H. Kuchel, R (1910)	Clair Engle, D (1911)
Colorado.....	Stephen L. R. McNichols, D (1914)	Gordon Allott, R (1907)	John A. Carroll, D (1901)
Connecticut.....	Abraham A. Ribicoff, D (1910)	Prescott Bush, R (1895) ⁵	Thomas J. Dodd, D (1907)
Delaware.....	J. Caleb Boggs, R (1909)	John J. Williams, R (1904)	J. Allen Frear, Jr., D (1903)
Florida.....	LeRoy Collins, D (1909)	Spessard L. Holland, D (1892)	George A. Smathers, D (1913) ⁶
Georgia.....	Ernest Vandiver, D (1918)	Richard B. Russell, D (1897)	Herman E. Talmadge, D (1913)
Hawaii.....	William F. Quinn, R (1919) ⁷	Hiram L. Fong, R (1908)	Oren E. Long, D (1889) ⁷
Idaho.....	Robert E. Smylie, R (1914) ⁸	Henry C. Dworshak, R (1894) ⁹	Frank Church, D (1929) ⁸
Illinois.....	William G. Stratton, R (1914)	Paul H. Douglas, D (1892) ¹⁰	Everett M. Dirksen, R (1896)
Indiana.....	Harold W. Handley, R (1909)	Homer E. Capehart, R (1897)	Vance Hartke, D (1919)
Iowa.....	Herschel C. Loveless, D (1911)	Bourke B. Hickenlooper, R (1896)	Thomas E. Martin, R (1893)
Kansas.....	George Docking, D (1904)	Andrew F. Schoepel, R (1894)	Frank Carlson, R (1893)
Kentucky.....	A. B. Chandler, D (1898)	John S. Cooper, R (1901)	Thurston B. Morton, R (1907)
Louisiana.....	Earl K. Long, D (1895)	Allen J. Ellender, D (1891)	Russell B. Long, D (1918)
Maine.....	Clinton A. Clauson, D (1895) ⁹	Margaret C. Smith, R (1897)	Edmund S. Muskie, D (1914)
Maryland.....	J. Millard Tawes, D (1894)	John M. Butler, R (1897)	J. Glenn Beall, R (1894)
Massachusetts.....	Foster Furcolo, D (1911) ¹¹	Leverett Saltonstall, R (1892)	John F. Kennedy, D (1917)
Michigan.....	G. Mennen Williams, D (1911)	Pat McNamara, D (1894) ¹²	Philip A. Hart, D (1912) ¹²
Minnesota.....	Orville L. Freeman, D (1918)	Hubert H. Humphrey, D (1911) ¹³	Eugene J. McCarthy, D (1916)
Mississippi.....	J. P. Coleman, D (1914)	James O. Eastland, D (1904)	John Stennis, D (1910)
Missouri.....	James T. Blair, Jr., D (1902)	T. C. Hennings, Jr., D (1903)	Stuart Symington, D (1901) ¹⁰
Montana.....	J. Hugo Aronson, R (1891) ¹⁴	James E. Murray, D (1876) ¹⁵	Mike Mansfield, D (1903) ²
Nebraska.....	Ralph G. Brooks, D (1898)	Roman L. Hruska, R (1904)	Carl T. Curtis, R (1905)
Nevada.....	Grant Sawyer, D (1918) ¹⁶	Alan Bible, D (1909)	Howard W. Cannon, D (1912) ¹⁷
New Hampshire.....	Wesley Powell, R (1915)	Styles Bridges, R (1898) ¹⁸	Norris Cotton, R (1900)
New Jersey.....	Robert B. Meyner, D (1908) ¹²	Clifford P. Case, R (1904)	H. A. Williams, Jr., D (1919)
New Mexico.....	John Burroughs, D (1908) ¹⁹	Dennis Chavez, D (1888)	Clinton P. Anderson, D (1895) ¹³
New York.....	Nelson A. Rockefeller, R (1908) ¹⁸	Jacob K. Javits, R (1904)	Kenneth B. Keating, R (1900)
North Carolina.....	Luther H. Hodges, D (1898) ²⁰	Sam J. Ervin, Jr., D (1896)	B. Everett Jordan, D (1896)
North Dakota.....	John E. Davis, R (1913)	William Langer, R (1886)	Milton R. Young, R (1897)
Ohio.....	Michael V. DiSalle, D (1908) ²	Frank J. Lausche, D (1895)	Stephen M. Young, D (1890)
Oklahoma.....	J. Howard Edmonson, D (1925)	Robert S. Kerr, D (1896)	A. S. (Mike) Monroney, D (1902)
Oregon.....	Mark O. Hatfield, R (1922)	Wayne Morse, D (1900) ²¹	Richard L. Neuberger, D (1912)
Pennsylvania.....	David L. Lawrence, D (1889)	Joseph S. Clark, D (1901)	Hugh Scott, R (1900) ²⁰
Rhode Island.....	Christopher DelSesto, R (1907)	Theodore F. Green, D (1867)	John O. Pastore, D (1907)
South Carolina.....	Ernest F. Hollings, D (1922)	Olin D. Johnston, D (1896)	Strom Thurmond, D (1902)
South Dakota.....	Ralph E. Herseeth, D (1909)	Karl E. Mundt, R (1900)	Francis Case, R (1896) ⁹
Tennessee.....	Buford Ellington, D (1907) ²²	Estes Kefauver, D (1903)	Albert Gore, D (1907)
Texas.....	Price Daniel, D (1910)	Lyndon B. Johnson, D (1908)	R. W. Yarborough, D (1903)
Utah.....	George D. Clyde, R (1898)	Wallace F. Bennett, R (1898)	Frank E. Moss, D (1911)
Vermont.....	Robert T. Stafford, R (1913)	George D. Aiken, R (1892)	Winston L. Prouty, R (1906)
Virginia.....	J. Lindsay Almond, Jr., D (1898)	Harry Flood Byrd, D (1887) ²³	A. Willis Robertson, D (1887) ²³
Washington.....	Albert D. Rosellini, D (1910)	Warren G. Magnuson, D (1905) ⁹	Henry M. Jackson, D (1912)
West Virginia.....	Cecil H. Underwood, R (1922)	Jennings Randolph, D (1902)	Robert C. Byrd, D (1918) ²⁴
Wisconsin.....	Gaylord A. Nelson, D (1916)	Alexander Wiley, R (1884)	William Proxmire, D (1915) ²⁵
Wyoming.....	J. J. (Joe) Hickey, D (1911)	Joseph O'Mahoney, D (1884) ¹⁰	Gale W. McGee, D (1915) ²⁶

¹ Born in Washington. ² Born in New York. ³ Born in Kentucky. ⁴ Born in Missouri. ⁵ Born in Ohio. ⁶ Born in New Jersey. ⁷ Born in Kansas. ⁸ Born in Iowa. ⁹ Born in Minnesota. ¹⁰ Born in Massachusetts. ¹¹ Born in Connecticut. ¹² Born in Pennsylvania. ¹³ Born in South Dakota. ¹⁴ Born in Sweden. ¹⁵ Born in Canada. ¹⁶ Born in Idaho. ¹⁷ Born in Utah. ¹⁸ Born in Maine. ¹⁹ Born in Texas. ²⁰ Born in Virginia. ²¹ Born in Wisconsin. ²² Born in Mississippi. ²³ Born in West Virginia. ²⁴ Born in North Carolina. ²⁵ Born in Illinois. ²⁶ Born in Nebraska.

Presidential Elections, 1789 to 1956

Year	Presidential candidates	Party	Electoral vote	Year	Presidential candidates	Party	Electoral vote
1789 ^{1,2}	George Washington	(no party)	69	1796 ¹	John Adams	Federalist	71
	John Adams	(no party)	34		Thomas Jefferson	Dem.-Rep.	68
	Scattering	(no party)	35		Thomas Pinckney	Federalist	59
	Votes not cast		8		Aaron Burr	Dem.-Rep.	30
1792 ¹	George Washington	Federalist	132	1800 ^{1,3}	Scattering	Federalist	48
	John Adams	Federalist	77		Thomas Jefferson	Dem.-Rep.	73
	George Clinton	Anti-Federalist	50		Aaron Burr	Dem.-Rep.	73
	Thomas Jefferson	Anti-Federalist	4		John Adams	Federalist	65
	Aaron Burr	Anti-Federalist	1		Charles C. Pinckney	Federalist	64
	Votes not cast		6		John Jay	Federalist	1

¹ For the original method of electing the President and the Vice President, see Article II, Section 1, of the Constitution. ² Only 10 states participated in the election. The New York legislature chose no electors, and North Carolina and Rhode Island had not yet ratified the Constitution. ³ As Jefferson and Burr were tied, the House of Representatives chose the President. In a vote by states, 10 votes were cast for Jefferson, 4 for Burr; 2 votes were not cast.

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1804 ¹	Thomas Jefferson	Dem.-Rep.	162	George Clinton	Dem.-Rep.	162
	Charles C. Pinckney	Federalist	14	Rufus King	Federalist	14
1808	James Madison	Dem.-Rep.	122	George Clinton	Dem.-Rep.	113
	Charles C. Pinckney	Federalist	47	Rufus King	Federalist	47
	George Clinton	Dem.-Rep.	6	John Langdon	Ind. (no party)	9
	Votes not cast		1	James Madison	Dem.-Rep.	3
				James Monroe	Dem.-Rep.	3
1812				Votes not cast		1
	James Madison	Dem.-Rep.	128	Elbridge Gerry	Dem.-Rep.	131
	De Witt Clinton	Federalist	89	Jared Ingersoll	Federalist	86
	Votes not cast		1	Votes not cast		1
1816	James Monroe	Dem.-Rep.	183	Daniel D. Tompkins	Dem.-Rep.	183
	Rufus King	Federalist	34	John E. Howard	Federalist	22
	Votes not cast		4	James Ross	Ind. (no party)	5
				John Marshall	Federalist	4
				Robert G. Harper	Ind. (no party)	3
				Votes not cast		4
1820	James Monroe	Dem.-Rep.	231	Daniel D. Tompkins	Dem.-Rep.	218
	John Quincy Adams	Ind. (no party)	1	Richard Stockton	Ind. (no party)	8
	Votes not cast		3	Daniel Rodney	Ind. (no party)	4
				Richard Rush	Ind. (no party)	1
				Robert G. Harper	Ind. (no party)	1
				Votes not cast		3
1824 ²	John Quincy Adams	(no party)	84	John C. Calhoun	(no party)	182
	Andrew Jackson	(no party)	99	Nathan Sanford	(no party)	30
	William H. Crawford	(no party)	41	Nathaniel Macon	(no party)	24
	Henry Clay	(no party)	37	Andrew Jackson	(no party)	13
				Martin Van Buren	(no party)	9
				Henry Clay	(no party)	2
1828				Votes not cast		1
	Andrew Jackson	Democratic	178	John C. Calhoun	Democratic	171
	John Quincy Adams	Natl. Rep.	83	Richard Rush	Natl. Rep.	83
				William Smith	Democratic	7
1832	Andrew Jackson	Democratic	219	Martin Van Buren	Democratic	189
	Henry Clay	Natl. Rep.	49	John Sergeant	Natl. Rep.	49
	John Floyd	Ind. (no party)	11	Henry Lee	Ind. (no party)	11
	William Wirt ³	Antimasonic	7	Amos Ellmaker	Antimasonic	7
	Votes not cast		2	William Wilkins	Ind. (no party)	30
				Votes not cast		2
1836	Martin Van Buren	Democratic	170	Richard M. Johnson ⁴	Democratic	147
	William H. Harrison	Whig	73	Francis Granger	Whig	77
	Hugh L. White	Whig	26	John Tyler	Democratic	47
	Daniel Webster	Whig	14	William Smith	Ind. (no party)	23
	W. P. Mangum	Ind. (no party)	11			
1840	William H. Harrison ⁵	Whig	234	John Tyler	Whig	234
	Martin Van Buren	Democratic	60	Richard M. Johnson	Democratic	48
				L. W. Tazewell	Ind. (no party)	11
				James K. Polk	Democratic	1

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1844	James K. Polk Henry Clay	Democratic Whig	170 105	George M. Dallas Theo. Frelinghuysen	Democratic Whig	170 105
1848	Zachary Taylor ^a Lewis Cass	Whig Democratic	163 127	Millard Fillmore William O. Butler	Whig Democratic	163 127
1852	Franklin Pierce Winfield Scott	Democratic Whig	254 42	William R. King William A. Graham	Democratic Whig	254 42
1856	James Buchanan John C. Frémont Millard Fillmore	Democratic Republican American ⁷	174 114 8	John C. Breckinridge William L. Dayton A. J. Donelson	Democratic Republican American ⁷	174 114 8
1860	Abraham Lincoln John C. Breckinridge John Bell Stephen A. Douglas	Republican Democratic Const. Union Democratic	180 72 39 12	Hannibal Hamlin Joseph Lane Edward Everett H. V. Johnson	Republican Democratic Const. Union Democratic	180 72 39 12
1864	Abraham Lincoln ⁸ George B. McClellan	Union ¹⁰ Democratic	212 21	Andrew Johnson G. H. Pendleton	Union ¹⁰ Democratic	212 21
1868	Ulysses S. Grant Horatio Seymour Votes not counted ⁹	Republican Democratic	214 80 23	Schuyler Colfax Francis P. Blair, Jr. Votes not counted ⁹	Republican Democratic	214 80 23

¹ The first election in which the electors voted for President and Vice President on separate ballots. (See Amendment XII to the Constitution.) ² As no candidate had an electoral-vote majority, the House of Representatives chose the President from the first three. In a vote by states, 13 votes were cast for Adams, 7 for Jackson, and 4 for Crawford. ³ The Antimasonic party, on Sept. 26, 1831, was the first party to hold a nominating convention to choose candidates for President and Vice President. ⁴ As Johnson did not have an electoral-vote majority, the Senate chose him 33-14 over Granger, the others being legally out of the race. ⁵ Harrison died Apr. 1, 1841, and Taylor succeeded him Apr. 6. ⁶ Taylor died July 9, 1850, and Fillmore succeeded him July 10. ⁷ Also known as the Know-Nothing party. ⁸ Lincoln died Apr. 15, 1865, and Johnson succeeded him the same day. ⁹ 23 Southern electoral votes were excluded. ¹⁰ Name adopted by the Republican National Convention of 1864. Johnson was a War Democrat.

Year	Presidential candidates	Party	Electoral vote	Popular vote ¹	Vice-presidential candidates and party
1872	Ulysses S. Grant Horace Greeley Thomas A. Hendricks B. Gratz Brown Charles J. Jenkins David Davis Votes not counted	Republican Dem., Liberal Rep. Democratic Dem., Liberal Rep. Democratic Democratic	286 (*) 42 18 2 1 17	3,597,132 2,834,125	Henry Wilson—R B. Gratz Brown—D, LR—(47) Scattering—(19) Votes not counted—(14)
1876³	Rutherford B. Hayes Samuel J. Tilden Peter Cooper	Republican Democratic Greenback	185 184 0	4,033,768 4,285,992 81,737	William A. Wheeler—R Thomas A. Hendricks—D Samuel F. Cary—G
1880	James A. Garfield ⁴ Winfield S. Hancock James B. Weaver	Republican Democratic Greenback	214 155 0	4,449,053 4,442,035 308,578	Chester A. Arthur—R William H. English—D B. J. Chambers—G
1884	Grover Cleveland James G. Blaine Benjamin F. Butler John P. St. John	Democratic Republican Greenback Prohibition	219 182 0 0	4,911,017 4,848,334 175,370 150,369	Thomas A. Hendricks—D John A. Logan—R A. M. West—G William Daniel—P
1888	Benjamin Harrison Grover Cleveland Clinton B. Fisk Alson J. Streeter	Republican Democratic Prohibition Union Labor	233 168 0 0	5,440,216 5,538,233 249,506 146,935	Levi P. Morton—R A. G. Thurman—D John A. Brooks—P Charles E. Cunningham—UL
1892	Grover Cleveland Benjamin Harrison James B. Weaver John Bidwell	Democratic Republican People's ⁵ Prohibition	277 145 22 0	5,556,918 5,176,108 1,041,028 264,133	Adlai E. Stevenson—D Whitelaw Reid—R James G. Field—Peo James B. Cranfill—P
1896	William McKinley William J. Bryan John M. Palmer Joshua Levering	Republican Dem., People's ⁵ Natl. Dem. Prohibition	271 176 0 0	7,035,638 6,467,946 133,148 132,007	Garret A. Hobart—R Arthur Sewall—D—(149) Thomas E. Watson—Peo—(27) Simon B. Buckner—ND Hale Johnson—P
1900	William McKinley ⁶ William J. Bryan John G. Woolley Eugene V. Debs	Republican Dem., People's ⁵ Prohibition Social Democratic	292 155 0 0	7,219,530 6,358,071 208,914 94,768	Theodore Roosevelt—R Adlai E. Stevenson—D, Peo Henry B. Metcalf—P Job Harriman—SD

Year	Presidential candidates	Party	Electoral vote	Popular vote ¹	Vice-presidential candidates and party
1904	Theodore Roosevelt	Republican	336	7,628,834	Charles W. Fairbanks—R
	Alton B. Parker	Democratic	140	5,084,491	Henry G. Davis—D
	Eugene V. Debs	Socialist	0	402,400	Benjamin Hanford—S
	Silas C. Swallow	Prohibition	0	258,536	George W. Carroll—P
	Thomas E. Watson	People's	0	117,183	Thomas H. Tibbles—Peo
1908	William H. Taft	Republican	321	7,679,006	James S. Sherman—R
	William J. Bryan	Democratic	162	6,409,106	John W. Kern—D
	Eugene V. Debs	Socialist	0	420,820	Benjamin Hanford—S
	Eugene W. Chafin	Prohibition	0	253,840	Aaron S. Watkins—P
	Thomas L. Hisgen	Independence	0	82,872	John T. Graves—I
1912	Woodrow Wilson	Democratic	435	6,286,214	Thomas R. Marshall—D
	Theodore Roosevelt	Progressive	88	4,126,020	Hiram Johnson—Prog
	William H. Taft	Republican	8	3,483,922	Nicholas M. Butler—R ⁷
	Eugene V. Debs	Socialist	0	897,011	Emil Seidel—S
	Eugene W. Chafin	Prohibition	0	206,275	Aaron S. Watkins—P
1916	Woodrow Wilson	Democratic	277	9,129,606	Thomas R. Marshall—D
	Charles E. Hughes	Republican	254	8,538,221	Charles W. Fairbanks—R
	A. L. Benson	Socialist	0	585,113	G. R. Kirkpatrick—S
	J. Frank Hanly	Prohibition	0	220,506	Ira Landrith—P
1920	Warren G. Harding ⁸	Republican	404	16,152,200	Calvin Coolidge—R
	James M. Cox	Democratic	127	9,147,353	Franklin D. Roosevelt—D
	Eugene V. Debs	Socialist	0	917,799	Seymour Stedman—S
	P. P. Christensen	Farmer-Labor	0	265,411	Max S. Hayes—FL
	Aaron S. Watkins	Prohibition	0	189,408	D. Leigh Colvin—P
1924	Calvin Coolidge	Republican	382	15,725,016	Charles G. Dawes—R
	John W. Davis	Democratic	136	8,385,586	Charles W. Bryan—D
	Robert M. LaFollette	Progressive, Socialist	13	4,822,856	Burton K. Wheeler—Prog S
1928	Herbert Hoover	Republican	444	21,392,190	Charles Curtis—R
	Alfred E. Smith	Democratic	87	15,016,443	Joseph T. Robinson—D
1932	Franklin D. Roosevelt	Democratic	472	22,821,857	John N. Garner—D
	Herbert Hoover	Republican	59	15,761,841	Charles Curtis—R
1936	Franklin D. Roosevelt	Democratic	523	27,751,597	John N. Garner—D
	Alfred M. Landon	Republican	8	16,679,583	Frank Knox—R
1940	Franklin D. Roosevelt	Democratic	449	27,244,160	Henry A. Wallace—D
	Wendell L. Willkie	Republican	82	22,305,198	Charles L. McNary—R
1944	Franklin D. Roosevelt ⁹	Democratic	432	25,602,504	Harry S. Truman—D
	Thomas E. Dewey	Republican	99	22,006,285	John W. Bricker—R
1948	Harry S. Truman	Democratic	303	24,105,695	Alben W. Barkley—D
	Thomas E. Dewey	Republican	189	21,969,170	Earl Warren—R
	J. Strom Thurmond	States' Rights Dem.	39	1,169,021	Fielding L. Wright—SR
	Henry A. Wallace	Progressive	0	1,156,103	Glen Taylor—Prog
1952	Dwight D. Eisenhower	Republican	442	33,824,351	Richard M. Nixon—R
	Adlai E. Stevenson	Democratic	89	27,314,987	John J. Sparkman—D
1956 ¹⁰	Dwight D. Eisenhower	Republican	457	35,581,003	Richard M. Nixon—R
	Adlai E. Stevenson	Democratic	73	26,031,322	Estes Kefauver—D

NOTE: For minor-party candidates and vote for 1948-56, see following pages.

¹ For those candidates receiving over 75,000 votes. ² Greeley died Nov. 29, 1872, before his 66 electors voted. In the electoral balloting for President, 63 of Greeley's votes were scattered among Hendricks, Brown, Jenkins and Davis; the other 3, included in "Votes not counted," were cast for Greeley by electors from Georgia. This was the first election in which every state chose its electors by popular vote. ³ After the voting of the electoral college, Tilden had 134 undisputed votes, and Hayes 163. However, 22 other votes were in doubt, because two sets of electoral ballots were received from South Carolina, Louisiana, Florida and Oregon. For each of the three Southern states, one set was completely Democratic, the other completely Republican. For Oregon, one set gave all 3 of the state's votes to Hayes, the other gave one of the votes to Tilden. To settle the dispute, Congress created an Electoral Commission on Jan. 29, 1877. This Commission, consisting of 5 Supreme Court Justices, 5 senators and 5 representatives (8 Republicans and 7 Democrats), gave the 22 votes in question to Hayes. ⁴ Garfield died Sept. 19, 1881, and Arthur succeeded him Sept. 20. ⁵ The members of the People's party were known as Populists. ⁶ McKinley died Sept. 14, 1901, and Roosevelt succeeded him the same day. ⁷ James S. Sherman, Republican candidate for Vice President, died Oct. 30, 1912, and the Republican electoral votes were cast for Butler. ⁸ Harding died Aug. 2, 1923, and Coolidge succeeded him Aug. 3. ⁹ Roosevelt died Apr. 12, 1945, and Truman succeeded him the same day. ¹⁰ One electoral vote from Alabama was cast for Walter B. Jones.

Presidential Election of 1948

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Democratic—Harry S. Truman, Missouri; Alben Barkley, Kentucky.
 Republican—Thomas E. Dewey, New York; Earl Warren, California.
 States' Rights Democratic—J. Strom Thurmond, South Carolina; Fielding L. Wright, Mississippi.
 Progressive¹—Henry A. Wallace, Iowa; Glen H. Taylor, Idaho.
 Socialist—Norman Thomas, New York; Tucker P. Smith, Michigan.
 Prohibition—Claude A. Watson, California; Dale Learn, Pennsylvania.
 Socialist Labor²—Edward A. Teichert, Pennsylvania; Stephen Emery, New York.

State	Total	Dem:	Rep.	SR Dem.	Plur.	Electoral			Prog. ¹	Others ³
						D	R	S		
Alabama.....	214,980	(4)	40,930	171,443	130,513 S	..	..	11	1,522	1,085
Arizona.....	177,065	95,251	77,597	..	17,654 D	4	..	..	3,310	907
Arkansas.....	242,475	149,659	50,959	40,068	98,700 D	9	..	..	751	1,038
California.....	4,021,538	1,913,134	1,895,269	1,228 ⁵	17,865 D	25	..	..	190,381	21,526
Colorado.....	515,237	267,288	239,714	..	27,574 D	6	..	..	6,115	2,120
Connecticut.....	883,518	423,297	437,754	..	14,457 R	..	8	..	13,713	8,754
Delaware.....	139,073	67,813	69,588	..	1,775 R	..	3	..	1,050	622
Florida.....	577,643	281,988	194,280	89,755	87,708 D	8	..	..	11,620	..
Georgia.....	418,760	254,646	76,691	85,055	169,591 D	12	..	..	1,636	732
Idaho.....	214,816	107,370	101,514	..	5,856 D	4	..	..	4,972	960
Illinois.....	3,984,046	1,994,715	1,961,103	..	33,612 D	28	..	..	..	28,228
Indiana.....	1,656,214	807,833	821,079	..	13,246 R	..	13	..	9,649	17,653
Iowa.....	1,038,264	522,380	494,018	..	28,362 D	10	..	..	12,125	9,741
Kansas.....	788,819	351,902	423,039	..	71,137 R	..	8	..	4,603	9,275
Kentucky.....	822,658	466,756	341,210	10,411	125,546 D	11	..	..	1,567	2,714
Louisiana.....	416,326	136,344	72,657	204,290	67,946 S	..	..	10	3,035	..
Maine.....	264,787	111,916	150,234	..	38,318 R	..	5	..	1,884	753
Maryland.....	596,735	286,521	294,814	2,476 ⁵	8,293 R	..	8	..	9,983	2,941
Massachusetts.....	2,155,347	1,151,788	909,370	..	242,418 D	16	..	..	38,157	56,032
Michigan.....	2,109,609	1,003,448	1,038,595	..	35,147 R	..	19	..	46,515	21,051
Minnesota.....	1,212,226	692,966 ⁴	483,617	..	209,349 D	11	..	..	27,866	7,777
Mississippi.....	192,190	19,384 ⁷	5,043 ⁸	167,538 ⁹	148,154 S	..	..	9	225	..
Missouri.....	1,578,628	917,315	655,039	..	262,276 D	15	..	..	3,998	2,276
Montana.....	224,278	119,071	96,770	..	22,301 D	4	..	..	7,313	1,124
Nebraska.....	488,939	224,165	264,774	..	40,609 R	..	6	..	..	..
Nevada.....	62,117	31,291	29,357	..	1,934 D	3	..	..	1,469	..
New Hampshire.....	231,440	107,995	121,299	7	13,304 R	..	4	..	1,970	169
New Jersey.....	1,949,555	895,455	981,124	..	85,669 R	..	16	..	42,683	30,293
New Mexico.....	185,767	105,464	80,303	..	25,161 D	4	..	..	..	..
New York.....	6,274,527	2,780,204 ¹⁰	2,841,163	..	60,959 R	..	47	..	509,559	143,601
North Carolina.....	791,209	459,070	258,572	69,652	200,498 D	14	..	..	3,915	..
North Dakota.....	220,716	95,812	115,139	374	19,327 R	..	4	..	8,391	1,000
Ohio.....	2,936,071	1,452,791	1,445,684	..	7,107 D	25	..	..	37,596	..
Oklahoma.....	721,599	452,782	268,817	..	183,965 D	10	..	..	..	..
Oregon.....	524,080	243,147	260,904	..	17,757 R	..	6	..	14,978	5,051
Pennsylvania.....	3,735,149	1,752,426	1,902,197	..	149,771 R	..	35	..	55,161	25,365
Rhode Island.....	326,098	188,619	134,892	..	53,727 D	4	..	..	2,587	..
South Carolina.....	142,571	34,423	5,386	102,607	68,184 S	..	8	..	154	1
South Dakota.....	250,105	117,653	129,651	..	11,998 R	..	4	..	2,801	..
Tennessee.....	550,283	270,402	202,914	73,815	67,488 D	11	..	1	1,864	1,288
Texas.....	1,147,245	750,700	282,240	106,909	468,460 D	23	..	..	3,764	3,632
Utah.....	276,305	149,151	124,402	..	24,749 D	4	..	..	2,679	73
Vermont.....	123,382	45,557	75,926	..	30,369 R	..	3	..	1,279	620
Virginia.....	419,256	200,786	172,070	43,393	28,716 D	11	..	..	2,047	960
Washington.....	905,059	476,165	386,315	..	89,850 D	8	..	..	31,692	10,887
West Virginia.....	748,750	429,188	316,251	..	112,937 D	8	..	..	3,311	..
Wisconsin.....	1,276,800	647,310	590,959	..	56,351 D	12	..	..	25,282	13,249
Wyoming.....	101,425	52,354	47,947	..	4,407 D	3	..	..	931	193
Total.....	48,833,680	24,105,695	21,969,170	1,169,021	2,136,525 D	303	189	39	1,156,103	433,691

¹ Independent Progressive in California; Peoples in Connecticut; Independent in Kansas, Mississippi, Ohio, South Dakota; American Labor in New York. ² People's Progressive in Wisconsin. ³ Industrial Government in Minnesota. ⁴ New York, Pennsylvania; Independent Socialist Labor in Wisconsin. ⁵ Breakdown of other votes: Socialist 139,009; Prohibition 103,216; Socialist Labor 29,061; Socialist Workers 13,613; Christian Nationalist 42; Greenback 6; Vegetarian 4; blank 145,320; write-in 1,683; scattering 1,666; void 71. ⁶ Not on ballot. ⁷ Write-in votes. ⁸ Including Farmer-Labor votes. ⁹ National Democratic. ¹⁰ Contains 2,595 Republican and 2,448 Independent Republican votes. ¹¹ Mississippi Democratic. ¹² Includes 222,562 Liberal votes.

Presidential Election of 1952

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Republican—Dwight D. Eisenhower, New York; Richard M. Nixon, California.

Democratic—Adlai E. Stevenson, Illinois; John J. Sparkman, Alabama.

Progressive¹—Vincent Hallinan, California; Mrs. Charlotta A. Bass, New York.

Prohibition—Stuart Hamblen, California; Enoch A. Holtwick, Illinois.

Socialist Labor²—Eric Hass, New York; Stephen Emery, New York.

Socialist—Darlington Hoopes, Pennsylvania; Samuel H. Friedman, New York.

State	Total	Rep.	Dem.	Plur.	Electoral		Prog. ¹	Prohib.	Soc. Lab. ²	Others ³	
					R	D					
Alabama.....	426,120	149,231	275,075	125,844	D	11		1,814			
Arizona.....	260,570	152,042	108,528	43,514	R	4					
Arkansas.....	404,800	177,155	226,300	49,145	D	8		886	1	458	
California.....	5,141,849	2,897,310	2,197,548	699,762	R	32	24,106	15,653		7,232	
Colorado.....	630,103	379,782	245,504	134,278	R	6	1,919		352	2,546	
Connecticut.....	1,096,911	611,012	481,649	129,363	R	8			535	3,715	
Delaware.....	174,025	90,059	83,315	6,744	R	3	155	234	242	20	
Florida.....	989,337	544,036	444,950	99,086	R	10				351	
Georgia.....	655,803	198,979	456,823	257,844	D	12				1	
Idaho.....	276,231	180,707	95,081	85,626	R	4	443				
Illinois.....	4,481,058	2,457,327	2,013,920	443,407	R	27			9,363	448	
Indiana.....	1,955,325	1,136,259	801,530	334,729	R	13	1,222	15,335	979		
Iowa.....	1,268,773	808,906	451,513	357,393	R	10	5,085	2,882	139	248	
Kansas.....	896,166	616,302	273,296	343,006	R	8		6,038		530	
Kentucky.....	993,148	495,029	495,729	700	D	10	336	1,161	893		
Louisiana.....	651,952	306,925	345,027	38,102	D	10					
Maine.....	351,786	232,353	118,806	113,547	R	5	332		156	139	
Maryland.....	902,074	499,424	395,337	104,087	R	9	7,313				
Massachusetts.....	2,383,398	1,292,325	1,083,525	208,800	R	16	4,636	886	1,957	69	
Michigan.....	2,798,592	1,551,529	1,230,657	320,872	R	20	3,922	10,331	1,495	658	
Minnesota.....	1,379,483	763,211	608,458 ⁴	154,753	R	11	2,666	2,147	2,383	618	
Mississippi.....	285,532	(5)	172,566	59,600	D	8				112,966	
Missouri.....	1,892,062	959,429	929,830	29,599	R	13	987	885	169	762	
Montana.....	265,037	157,394	106,213	51,181	R	4	723	548		159	
Nebraska.....	609,660	421,603	188,057	233,546	R	6					
Nevada.....	82,190	50,502	31,688	18,814	R	3					
New Hampshire.....	272,950	166,287	106,663	59,624	R	4					
New Jersey.....	2,419,554	1,374,613	1,015,902	358,711	R	16	5,589	989	5,815	16,646	
New Mexico.....	238,608	132,170	105,661	26,509	R	4		297	35	445	
New York.....	7,128,241	3,952,815	3,104,601 ⁵	848,214	R	45	64,211		1,560	5,054	
North Carolina.....	1,210,910	558,107	652,803	94,696	D	14					
North Dakota.....	270,127	191,712	76,694	115,018	R	4	344	302		1,075	
Ohio.....	3,700,758	2,100,456	1,600,302	500,154	R	25					
Oklahoma.....	948,984	518,045	430,939	87,106	R	8					
Oregon.....	695,059	420,815	270,579	150,236	R	6				3,665	
Pennsylvania.....	4,580,717	2,415,789	2,146,269	269,520	R	32	4,200	8,771	1,347	4,341	
Rhode Island.....	414,498	210,935	203,293	7,642	R	4	187		83		
South Carolina.....	341,086	168,082 ⁷	173,004	4,922	D	8					
South Dakota.....	294,283	203,857	90,426	113,431	R	4					
Tennessee.....	892,553	446,147	443,710	2,437	R	11	885	1,432		379	
Texas.....	2,076,006	1,102,878	969,288	133,590	R	24	294	1,983		1,563	
Utah.....	329,554	194,190	135,364	58,826	R	4					
Vermont.....	153,539	109,717	43,355	66,362	R	3	282			185	
Virginia.....	619,689	349,037	268,677	80,360	R	12	311		1,160	504	
Washington.....	1,102,708	599,107	492,845	106,262	R	9	2,460		633	7,663	
West Virginia.....	873,548	419,970	453,578	33,608	D	8					
Wisconsin.....	1,607,370	979,744	622,175	357,569	R	12				5,451	
Wyoming.....	129,251	81,047	47,934	33,113	R	3		194	36	40	
Total.....	61,551,978	33,824,351	27,314,987 ⁸	6,509,364	R	442	89	132,608	72,768	29,333	177,931

¹ Independent Progressive in California; Peace Progressive in Massachusetts; American Labor in New York. ² Industrial Government in Minnesota, New York and Pennsylvania. ³ Breakdown of Other votes: Independent (pledged to Republican candidate in Miss.), 112,966; Socialist, 18,322; Christian Nationalist, 10,557; Socialist Workers, 8,950; write-in, 4,431; Poor Man's, 4,203; scattering, 4,040; Independent, 3,665; Constitution, 2,911; Vincent Hallinan (Independent in Wis.), 2,174; People's party of Connecticut, 1,466; Farrell Dobbs (Independent in Wis.), 1,350; Darlington Hoopes (Independent in Wis.), 1,157; Eric Hass (Independent in Wis.), 770; Social Democrat, 504; America First, 233; Independent Progressive, 225; Liberty, 1. ⁴ Democratic-Farmer Labor votes. ⁵ 112,966 Independent votes were pledged to the Republican candidate; these are shown as Other votes. ⁶ Includes 416,711 Liberal votes. ⁷ Includes 158,289 votes for separate set of electors for Republican candidates by petition.

Presidential Election of 1956

(Compiled from official sources)

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Republican—Dwight D. Eisenhower, New York; Richard M. Nixon, California.

Democratic—Adlai E. Stevenson, Illinois; Estes Kefauver, Tennessee.

Prohibition—Enoch A. Holtwick, Illinois; Edward M. Cooper, California.

Socialist—Darlington Hoopes, Pennsylvania; Samuel H. Friedman, New York.

Socialist Labor—Eric Hass, New York; Georgia Cozzini, Wisconsin.

Socialist Workers—Farrell Dobbs, New York; Myra Tanner Weiff, New York.

State	Total	Rep.	Dem.	Plur.	Electoral vote		Other Votes
					R	D	
Alabama.....	496,861	195,694	280,844	85,150 D	..	10 ¹	American party..... 483
Arizona.....	290,173	176,990	112,880	64,110 R	4	..	American Third party..... 1,829
Arkansas.....	406,572	186,287	213,277	26,990 D	..	8	Andrews, T. Coleman..... 1,140
California.....	5,466,355	3,027,668	2,420,135	607,533 R	32	..	(write-in)
Colorado.....	663,074	394,479	263,997	130,482 R	6	..	Conservative party..... 5,317
Connecticut.....	1,117,121	711,837	405,079	306,758 R	8	..	Constitution party..... 31,950
Delaware.....	177,988	98,057	79,421	18,636 R	3	..	(Includes 3,202 A. C. party
Florida.....	1,124,220	643,849	480,371	163,478 R	10	..	of Iowa votes)
Georgia.....	668,920	222,778	444,388	221,610 D	..	12	Hass, Eric (write-in)..... 150
Idaho.....	272,989	166,979	105,868	61,111 R	4	..	Hoopes, Darlington..... 82
Illinois.....	4,407,407	2,623,327	1,775,682	847,645 R	27	..	(write-in)
Indiana.....	1,974,607	1,182,811	783,908	398,903 R	13	..	Independent..... 72,235
Iowa.....	1,234,564	729,187	501,858	227,329 R	10	..	Industrial Government..... 2,080
Kansas.....	866,243	566,878	296,317	270,561 R	8	..	Militant Workers..... 2,035
Kentucky.....	1,053,805	572,192	476,453	95,739 R	10	..	Mississippi Black & Tan
Louisiana.....	617,544	329,047	243,977	85,070 R	10	..	Grand Old party..... 4,313
Maine.....	351,706	249,328	102,468	146,770 R	5	..	New party..... 364
Maryland.....	932,351	559,738	372,613	187,125 R	9	..	Prohibition party..... 41,937
Massachusetts.....	2,348,506	1,393,197	948,190	445,007 R	16	..	Socialist party..... 846
Michigan.....	3,080,468	1,713,647	1,359,998	353,749 R	20	..	Socialist Labor party..... 41,510
Minnesota.....	1,340,005	719,302	617,525	101,777 R	11	..	Socialist Workers..... 5,198
Mississippi.....	248,149	56,372	144,498	88,126 D	..	8	States' Rights party..... 109,961
Missouri.....	1,832,572	914,299	918,273	3,974 D	..	13	Virginia Social Democratic
Montana.....	271,171	154,933	116,238	38,695 R	4	..	party..... 444
Nebraska.....	577,137	378,108	199,029	179,079 R	6	..	Werdell, Thomas (write-in) .. 492
Nevada.....	96,689	56,049	40,640	15,409 R	3	..	Write-in..... 1,896
New Hampshire.....	266,994	176,519	90,364	86,155 R	4	..	Scattering (incl. 8 Christian
New Jersey.....	2,484,312	1,606,942	850,337	756,605 R	16	..	Nationalist votes)..... 1,127
New Mexico.....	253,926	146,788	106,098	40,690 R	4	..	Other (not specified)..... 817
New York.....	7,093,336	4,340,340	2,750,769 ²	1,589,571 R	45	..	
North Carolina.....	1,165,592	575,062	590,530	15,468 D	..	14	
North Dakota.....	253,991	156,766	96,742	60,024 R	4	..	
Ohio.....	3,702,265	2,262,610	1,439,655	822,955 R	25	..	
Oklahoma.....	859,350	473,769	385,581	88,188 R	8	..	
Oregon.....	735,597	406,393	329,204	77,189 R	6	..	
Pennsylvania.....	4,576,503	2,585,252	1,981,769	603,483 R	32	..	
Rhode Island.....	387,609	225,819	161,790	64,029 R	4	..	
South Carolina.....	300,583 ³	75,700	136,372	60,672 D	..	8	
South Dakota.....	293,857	171,569	122,288	49,281 R	4	..	
Tennessee.....	939,404	422,288	456,507	5,781 R	11	..	
Texas.....	1,955,168	1,080,619	859,958	220,661 R	24	..	
Utah.....	333,995	215,631	118,364	97,267 R	4	..	
Vermont.....	152,978	110,390	42,549	67,841 R	3	..	
Virginia.....	697,978	386,459	267,760	118,699 R	12	..	
Washington.....	1,150,889	620,430	523,002	97,428 R	9	..	
West Virginia.....	830,831	449,297	381,534	67,763 R	8	..	
Wisconsin.....	1,550,558	954,844	586,768	368,076 R	12	..	
Wyoming.....	124,127	74,573	49,554	25,019 R	3	..	
Total.....	62,027,040	35,581,003	26,031,322	9,549,681 R	457	73 ¹	

TOTAL..... 326,206

OTHER FACTS ABOUT ELECTIONS

Candidate with highest popular vote:

Eisenhower (1956), 35,581,003.

Candidate with highest electoral vote:

F. Roosevelt (1936), 523.

Candidate carrying most states: F.

Roosevelt (1936), 46.

Candidate running most times: Nor-

man Thomas, 6 (1928, 1932, 1936, 1940, 1944, 1948).

Candidate elected, defeated, then re-

elected: Cleveland (1884, 1888, 1892).

¹ Alabama's 11th electoral vote was cast for Walter B. Jones of Alabama. ² Includes 292,557 Liberal-party votes.

³ Includes 88,509 votes for electors nominated by petition.

Electoral Vote for President, 1888-1924

States	1888	1892	1896	1900	1904	1908	1912	1916	1920	1924
	Harrison, Rep. Cleveland, Dem.	Cleveland, Dem. Harrison, Rep. Weaver, Peo.	McKinley, Rep. Bryan, Dem.	McKinley, Rep. Bryan, Dem.	Roosevelt, Rep. Parker, Dem.	Taft, Rep. Bryan, Dem.	Wilson, Dem. Taft, Rep.	Wilson, Dem. Hughes, Rep.	Harding, Rep. Cox, Dem.	Coolidge, Rep. Davis, Dem. La Follette, Prog.
Alabama	10	11	11	11	11	11	12	12	12	12
Arizona							3	3	3	3
Arkansas	7	8	8	8	9	9	9	9	9	9
California	8	8 1	8 1	9	10	10	2 11	13	13	13
Colorado	3	6 4	6 4	4	5	5	6	6	6	6
Connecticut	6	6	6	6	7	7	7	7	7	7
Delaware	3	3	3	3	3	3	3	3	3	3
Florida	4	4	4	4	5	5	6	6	6	6
Georgia	12	13	13	13	13	13	14	14	14	14
Idaho		3	3	3	3	3	4	4	4	4
Illinois	22	24	24	24	27	27	29	29	29	29
Indiana	15	15	15	15	15	15	15	15	15	15
Iowa	13	13	13	13	13	13	13	13	13	13
Kansas	9	10	10	10	10	10	10	10	10	10
Kentucky	13	13	12 1	13	13	13	13	13	13	13
Louisiana	8	8	8	8	9	9	10	10	10	10
Maine	6	6	6	6	6	6	6	6	6	6
Maryland	8	8	8	8	1 7	2 6	8	8	8	8
Massachusetts	14	15	15	15	16	16	18	18	18	18
Michigan	13	5 9	14	14	14	14	15	15	15	15
Minnesota	7	9	9	9	11	11	12	12	12	12
Mississippi	9	9	9	9	10	10	10	10	10	10
Missouri	16	17	17	17	18	18	18	18	18	18
Montana		3	3	3	3	3	4	4	4	4
Nebraska	5	8	8	8	8	8	8	8	8	8
Nevada	3	3	3	3	3	3	3	3	3	3
New Hampshire	4	4	4	4	4	4	4	4	4	4
New Jersey	9	10	10	10	12	12	14	14	14	14
New Mexico							3	3	3	3
New York	36	36	36	36	39	39	45	45	45	45
North Carolina	11	11	11	11	12	12	12	12	12	12
North Dakota		1 1 1	3	3	4	4	5	5	5	5
Ohio	23	1 22	23	23	23	23	24	24	24	24
Oklahoma						7	10	10	10	10
Oregon	3	3 1	4	4	4	4	5	5	5	5
Pennsylvania	30	32	32	32	34	34	38	38	38	38
Rhode Island	4	4	4	4	4	4	5	5	5	5
South Carolina	9	9	9	9	9	9	9	9	9	9
South Dakota		4	4	4	4	4	5	5	5	5
Tennessee	12	12	12	12	12	12	12	12	12	12
Texas	13	15	15	15	18	18	20	20	20	20
Utah			3	3	3	3	4	4	4	4
Vermont	4	4	4	4	4	4	4	4	4	4
Virginia	12	12	12	12	12	12	12	12	12	12
Washington		4	4	4	5	5	7	7	7	7
West Virginia	6	6	6	6	7	7	8	1 7	8	8
Wisconsin	11	12	12	12	12	13	13	13	13	13
Wyoming		3	3	3	3	3	3	3	3	3
Total	233 168	277 145 22	271 176	292 155	336 140	321 162	435 8 88	277 254	404 127	382 136 13

NOTE: For electoral votes by state in elections later than 1924, see preceding pages.

Qualifications for Voting in the 50 States

(Minimum voting age is 18 in Georgia and Kentucky, 19 in Alaska, and 20 in Hawaii.
In all other states, the minimum age is 21.)

Source: Questionnaires to the states.

State	Minimum length of U. S. citizenship	Residence ¹			Literacy test	Poll tax ²
		State	County	District		
Alabama.....	1 yr.	6 mo.	3 mo. ³	Yes	\$1.50 ¹⁴
Alaska.....	1 yr.	.....	30 da.	.....	.....
Arizona.....	1 yr.	1 yr.	30 da.	30 da.	Yes	.....
Arkansas.....	1 yr.	6 mo.	30 da. ⁴	.....	1.00
California.....	90 da.	1 yr.	90 da.	54 da. ⁴	Yes	.....
Colorado.....	1 yr.	3 mo.	30 da. ⁵	.....	.....
Connecticut.....	1 yr.	.....	6 mo. ⁶	Yes	.....
Delaware.....	1 yr.	3 mo.	30 da.	Yes	.....
Florida.....	1 yr.	6 mo.	.....	.....	.....
Georgia.....	1 yr.	6 mo.	6 mo.	Yes	.....
Hawaii.....	1 yr.	.....	3 mo.	.....	.....
Idaho.....	6 mo.	30 da.	.....	.....	.....
Illinois.....	1 yr.	3 mo.	30 da.	.....	.....
Indiana.....	6 mo.	2 mo. ³	30 da. ⁴	.....	.....
Iowa.....	6 mo.	60 da.	10 da. ⁴	.....	.....
Kansas.....	6 mo.	.....	30 da. ¹⁰	.....	.....
Kentucky.....	1 yr.	6 mo.	60 da. ⁴	.....	.....
Louisiana.....	1 yr.	1 yr. ¹¹	3 mo. ¹⁰	Yes	.....
Maine.....	6 mo.	.....	3 mo. ⁶	Yes	.....
Maryland.....	1 yr.	6 mo.	6 mo.	.....	.....
Massachusetts.....	1 yr.	.....	6 mo. ⁶	Yes	.....
Michigan.....	6 mo.	.....	30 da. ^{6,24}	.....	.....
Minnesota.....	3 mo.	6 mo.	.....	30 da.	.....	.....
Mississippi.....	2 yr.	1 yr.	1 yr.	(¹⁵)	2.00
Missouri.....	1 yr.	2 mo.	2 mo. ⁶	.....	.....
Montana.....	1 yr.	30 da.	30 da. ⁸	.....	.....
Nebraska.....	6 mo.	40 da.	10 da.	.....	.....
Nevada.....	6 mo.	30 da.	10 da. ⁴	.....	.....
New Hampshire.....	6 mo.	.....	6 mo. ⁶	Yes	.....
New Jersey.....	6 mo.	60 da.	.....	.....	.....
New Mexico.....	1 yr.	3 mo.	30 da. ⁴	.....	.....
New York.....	90 da.	1 yr.	4 mo.	30 da.	Yes	.....
North Carolina.....	1 yr.	4 mo.	4 mo.	Yes	.....
North Dakota.....	1 yr.	3 mo.	30 da. ⁴	.....	.....
Ohio.....	1 yr.	40 da.	40 da. ⁴	.....	.....
Oklahoma.....	1 yr.	6 mo.	30 da. ⁴	.....	.....
Oregon.....	6 mo.	30 da. ²³	30 da. ^{4,23}	Yes	.....
Pennsylvania.....	1 mo.	1 yr. ¹³	.....	2 mo.	.....	.....
Rhode Island.....	1 yr.	1 yr.	.....	6 mo. ⁶	.....	.....
South Carolina.....	2 yr.	2 yr.	1 yr.	4 mo.	.....	(¹⁵)
South Dakota.....	5 yr.	1 yr.	3 mo. ⁷	30 da. ^{4,7}	.....	.....
Tennessee.....	1 yr.	6 mo.	.....	.....	.....
Texas.....	1 yr.	6 mo.	.....	.....	1.75 ²¹
Utah.....	90 da.	1 yr.	4 mo.	60 da. ⁴	.....	.....
Vermont ²⁰	1 yr.	.....	3 mo. ^{6,16}	.....	.....
Virginia.....	1 yr.	6 mo. ¹⁶	30 da. ⁴	Yes	1.50
Washington.....	1 yr.	3 mo.	30 da. ¹⁷	Yes	.....
West Virginia.....	1 yr.	2 mo.	.....	.....	.....
Wisconsin.....	1 yr. ²³	.....	10 da.	.....	.....
Wyoming.....	1 yr.	60 da.	10 da.	(¹⁵)	.....

¹ Registration of all or part of the voters is required in most states. ² Annual levy. Although poll (or head) taxes are levied in several other states, those listed make payment of the tax a condition for voting. ³ Precinct or ward.

⁴ Precinct. ⁵ City or town, and 15 days in precinct. ⁶ City or town. ⁷ A person living in a new precinct or county for less than the period required may vote at either his old or new residence, provided he was qualified to vote at his old residence. ⁸ Precinct; 6 mo. in city or town. ⁹ Township. ¹⁰ Township or ward. ¹¹ Parish. ¹² Must be able to read, understand and/or write any section of state constitution. ¹³ 6 months if previously qualified elector or natural-born citizen of state. ¹⁴ 1953 act makes poll tax noncumulative except for 2 years preceding election in which elector offers to vote. ¹⁵ To qualify to vote for representatives to general assembly or justices. ¹⁶ County, city, or town. ¹⁷ City, town, ward, or precinct. ¹⁸ Repealed in 1945. ¹⁹ Precinct, municipality 4 mo. ²⁰ A person must take free-man's oath as qualification for voting. ²¹ \$1.50 levied by state; 25 cents levied by most counties, but not all. ²² To vote for county officials requires 30 days residence in the county; for municipal officials, 30 days in the municipality. State residents may vote in national and state-wide elections without 30 days local residence. ²³ Residents of less than one year may vote in presidential elections if eligible to vote elsewhere prior to moving. ²⁴ If person moves during 30-day period, he has to vote in old location.

U. S. National Conventions Since 1856

Opening date	Party	Where held	Presidential nominee	Vote
June 17, 1856	R	Philadelphia	John C. Frémont	520
June 2, 1856	D	Cincinnati	James Buchanan	296
May 16, 1860	R	Chicago	Abraham Lincoln	364
April 23, 1860	D	Charleston & Baltimore	S. A. Douglas	181
June 7, 1864	R ¹	Baltimore	Abraham Lincoln	Unanimous
Aug. 29, 1864	D	Chicago	Geo. B. McClellan	202½
May 20, 1868	R	Chicago	U. S. Grant	Unanimous
July 4, 1868	D	New York City	Horatio Seymour	Unanimous
June 5, 1872	R	Philadelphia	U. S. Grant	Unanimous
June 9, 1872	D	Baltimore	Horace Greeley	688
June 14, 1876	R	Cincinnati	R. B. Hayes	384
June 28, 1876	D	St. Louis	S. J. Tilden	508
June 2, 1880	R	Chicago	J. A. Garfield	399
June 23, 1880	D	Cincinnati	W. S. Hancock	705
June 3, 1884	R	Chicago	J. G. Blaine	541
July 11, 1884	D	Chicago	Grover Cleveland	683
June 19, 1888	R	Chicago	Benjamin Harrison	544
June 6, 1888	D	St. Louis	Grover Cleveland	By acclamation
June 7, 1892	R	Minneapolis	Benjamin Harrison	535⅓
June 21, 1892	D	Chicago	Grover Cleveland	617½
June 16, 1896	R	St. Louis	William McKinley	661½
July 7, 1896	D	Chicago	William J. Bryan	500
June 19, 1900	R	Philadelphia	William McKinley	Unanimous
July 4, 1900	D	Kansas City	William J. Bryan	By acclamation
June 21, 1904	R	Chicago	Theodore Roosevelt	Unanimous
July 6, 1904	D	St. Louis	Alton B. Parker	678
June 16, 1908	R	Chicago	William H. Taft	702
July 7, 1908	D	Denver	William J. Bryan	892½
June 18, 1912	R	Chicago	William H. Taft	561
June 25, 1912	D	Baltimore	Woodrow Wilson	990
June 7, 1916	R	Chicago	Charles E. Hughes	949½
June 14, 1916	D	St. Louis	Woodrow Wilson	By acclamation
June 8, 1920	R	Chicago	Warren G. Harding	692⅓
June 28, 1920	D	San Francisco	James M. Cox	732½
June 10, 1924	R	Cleveland	Calvin Coolidge	1,065
June 24, 1924 ²	D	New York City	John W. Davis	839 ³
June 12, 1928	R	Kansas City	Herbert Hoover	837
June 26, 1928	D	Houston	Alfred E. Smith	849½
June 14, 1932	R	Chicago	Herbert Hoover	1,126½
June 27, 1932	D	Chicago	F. D. Roosevelt	945
June 9, 1936	R	Cleveland	Alfred M. Landon	984
June 23, 1936	D	Philadelphia	F. D. Roosevelt	By acclamation
June 24, 1940	R	Philadelphia	Wendell L. Willkie	Unanimous
July 15, 1940	D	Chicago	F. D. Roosevelt	Unanimous
June 26, 1944	R	Chicago	Thomas E. Dewey	1,056
July 19, 1944	D	Chicago	F. D. Roosevelt	1,086-90
June 21, 1948	R	Philadelphia	Thomas E. Dewey	1,094-0
July 12, 1948	D	Philadelphia	Harry S. Truman	947½-263½
July 17, 1948	(⁴)	Birmingham	J. Strom Thurmond	By acclamation
July 22, 1948	(⁵)	Philadelphia	Henry A. Wallace	By acclamation
July 7, 1952	R	Chicago	Dwight D. Eisenhower	845-361
July 21, 1952	D	Chicago	Adlai E. Stevenson	By acclamation
Aug. 20, 1956	R	San Francisco	Dwight D. Eisenhower	Unanimous
Aug. 13, 1956	D	Chicago	Adlai E. Stevenson	By acclamation

¹ The Convention adopted name Union party to attract War Democrats and others favoring prosecution of war.
² In session until July 10, 1924. ³ 103d ballot. ⁴ States' Rights delegates from 13 Southern states. ⁵ Progressive party. NOTE: Cities for 1960: Democratic, Los Angeles, starting July 11, 1960; Republican, Chicago, starting July 25, 1960.

HOW A PRESIDENT IS NOMINATED AND ELECTED

Selection of Delegates

THE NATIONAL CONVENTIONS of both major parties are held sometime during the summer of a presidential-election year. Earlier, each party selects delegates by primaries, conventions, committees, etc.

For their 1956 National Convention, Democrats allowed the following delegates: *District delegates*:* 2 from each state for each Congressional District; *delegates-at-large*:* 2 from each state for each U. S. Senator, each Representative-at-large in Congress, and each Congressional District lost by the state as a result of reapportionment after the 1950 Census; *bonus delegates-at-large*:* 4 from each state that went Democratic in the 1948 presidential election and 4 from each state that either (a) went Democratic in the 1952 presidential election or (b) elected a Democratic Governor or U. S. Senator on or after Nov. 4, 1952; *other delegates-at-large*: 6 each from Alaska, D. C., Hawaii, and Puerto Rico, and 3 each from the Canal Zone and the Virgin Islands.

For their 1956 convention, Republicans allowed the following delegates: *District delegates*: 1 from each state for each Congressional District that cast at least 2,000 votes either for electors in the 1952 presidential election or for the Republican nominee for Congress in the 1954 election; 1 additional if the District cast at least 10,000 votes as stipulated above; *delegates-at-large*: 4 from each state, and 2 for each Representative-at-large in Congress; *bonus delegates-at-large*: 6 from each state that either (a) went Republican in the 1952 presidential election or (b) in that election or in a subsequent one held prior to the 1956 convention, elected a Republican Governor or U. S. senator; *other delegates-at-large*: 4 from Alaska, 6 from D. C., 10 from Hawaii (including 4 for having elected a Republican Delegate to Congress in 1952), 3 from Puerto Rico, and 1 from the Virgin Islands.

(For their 1960 conventions, both parties may make changes in the manner of selecting delegates. For one thing, Alaska and Hawaii will be on the same basis as other states.)

Both parties provide for the selection of alternates. Republicans allow one alternate for each delegate. Democrats allow one alternate for each delegate-at-large, whether that delegate has one full vote or $\frac{1}{2}$ vote; but only 1 alternate is allowed for each District vote, regardless of whether the vote is represented by 1 delegate with a full vote or 2 delegates with $\frac{1}{2}$ vote each.

* Democrats grant each state the option of doubling its delegates, giving each $\frac{1}{2}$ vote.

The Conventions

At each convention a temporary chairman is chosen, usually to deliver the party's keynote speech. After a credentials committee seats the various delegates, a permanent chairman is elected. The convention then votes on a platform, drawn up by the platform committee.

By the third or fourth day, presidential nominations begin. The chairman calls the roll of states alphabetically. A state may place a candidate in nomination or yield to another state.

Voting, again alphabetically by voice vote, begins after all nominations have been made and seconded. A simple majority is required in each party, although this may require many ballots.

Finally, the vice-presidential candidate is selected. Although there is no law saying that the candidates *must* come from different states, it is practically necessary for this to be the case. Otherwise, according to the Constitution (see Amendment XII), electors from that state could vote for only one of the candidates and would have to cast their other vote for some person of another state. This could result in the awkward situation of a presidential candidate's receiving a majority electoral vote and his running mate's failing to.

The Electoral College

The next step in the process is the nomination of electors in each state, according to its laws. These electors must not be Federal office holders. In the November election, the voters cast their votes for electors, not for President. In some states, the ballots include only the names of the presidential and vice-presidential candidates; in others, they include only names of the electors. Nowadays, it is rare for electors to be split between parties. The last such occurrence was in Tennessee in 1948; the last before that, in West Virginia in 1916. On three occasions (1824, 1876 and 1888), the presidential candidate with the largest popular vote failed to obtain an electoral-vote majority.

Each state has as many electors as it has U. S. Senators and Representatives. For the 1960 election, the U. S. total of electors will be 537 (based on 100 Senators and 437 Representatives), of which 269 will be needed to win.

On the first Monday after the second Wednesday in December, the electors cast their votes in their respective state capitols. Constitutionally they may vote for someone other than the party candidate but practically they cannot since they are pledged to one party and its candidate on the ballot. Should the presidential or vice-

presidential candidate die between the November election and the December meetings, the electors pledged to vote for him could vote for whomever they pleased. However, it seems certain that the national committee would attempt to get an agreement among the state party leaders for a replacement candidate.

The votes of the electors, certified by the states, are sent to Congress, where the president of the Senate opens the certificates and has them counted in the presence of both Houses on January 6.

Presidential Succession

The following is the order of the succession to the Presidency. No person may become President, however, unless he is eligible under the Constitution.

1. Vice President of the U. S.
2. Speaker of the House.
3. President pro tempore of the Senate.
4. Secretary of State.

The new President is inaugurated at noon on January 20.

Should no candidate receive a majority of the electoral vote for President, the House of Representatives chooses a President from among the three highest candidates, voting, not as individuals, but as states, with a majority (now 26 needed to elect). Should no vice-presidential candidate obtain the majority, the Senate, voting as individuals, chooses from the highest two.

5. Secretary of the Treasury.
6. Secretary of Defense.
7. Attorney General.
8. Postmaster General.
9. Secretary of the Interior.
10. Secretary of Agriculture.
11. Secretary of Commerce.
12. Secretary of Labor.

The Flag at Half-Staff

The flag shall be flown at half-staff 30 days for the President of the U. S. or a former President; 10 days for the Vice President, the Chief Justice, a retired Chief Justice, or the Speaker of the House; until interment for an Associate Justice, a Cabinet member,

a former Vice President, a Senator, a Representative, a state or territorial governor, etc. For other officials, the President or customs shall rule. Jurisdiction on naval vessels, government buildings, etc., is left to those in charge.

How a Bill Becomes a Law

When a Senator or a Representative introduces a bill, he sends it to the clerk of his house, who gives it a number and title. This is the *first reading*, and the bill is referred to the proper committee.

The committee may decide the bill is unwise or unnecessary and *table* it, thus killing it at once. Or it may decide the bill is worthwhile and hold hearings to listen to facts and opinions presented by experts and other interested persons. After members of the committee have debated the bill and perhaps offered amendments, a vote is taken; and if the vote is favorable, the bill is sent back to the floor of the house.

The clerk reads the bill sentence by sentence to the house, and this is known as the *second reading*. Members may then debate the bill and offer amendments. In the House of Representatives, the time for debate is limited by a *cloture rule*, but there is no such restriction in the Senate except by a two-thirds vote for cloture. This makes possible a *filibuster*, in which one or more opponents hold the floor to defeat the bill.

The *third reading* is by title only, and the bill is put to a vote, which may be by voice or roll call, depending on the circumstances and parliamentary rules. Members who must be absent at the time but who wish to record

their vote may be paired if each negative vote has a balancing affirmative one.

The bill then goes to the other house of Congress, where it may be defeated, or passed with or without amendments. If the bill is defeated, it dies. If it is passed with amendments, a joint Congressional committee must be appointed by both houses to iron out the differences.

After its final passage by both houses, the bill is sent to the President. If he approves, he signs it, and the bill becomes a law. However, if he disapproves, he *veto*es the bill by refusing to sign it and sending it back to the house of origin with his reasons for the veto. The objections are read and debated, and a roll-call vote is taken. If the bill receives less than a two-thirds vote, it is defeated and goes no farther. But if it receives a two-thirds vote or greater, it is sent to the other house for a vote. If that house also passes it by a two-thirds vote, the President's veto is *overridden*, and the bill becomes a law.

Should the President desire neither to sign nor to veto the bill, he may retain it for ten days, Sundays excepted, after which time it automatically becomes a law without signature. However, if Congress has adjourned within those ten days, the bill is automatically killed, that process of indirect rejection being known as a *pocket veto*.

Principal Bills and Treaties Since 1900

PARTY ABBREVIATIONS

Dem.—Democratic
Rep.—Republican

A.L.—American Labor
F.L.—Farmer-Labor

Ind.—Independent
Prog.—Progressive

Proh.—Prohibition
Soc.—Socialist

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Hay-Pauncefote Treaty. England agreed the U. S. can build and control an Isthmian canal open to all nations on equal terms (ratified Dec. 16, 1901).		No vote required		72	6	Nov. 18, 1901
Hay-Bunau-Varilla Treaty. Granted the U. S. a ten-mile strip in Panama in perpetuity for \$10,000,000 in gold and an annuity of \$250,000.	Dem. Rep.	No vote required		9 41	15 1	Mar. 19, 1903
Pure Food and Drug Act. Made shipments in interstate commerce of adulterated foods and drugs illegal.		240	17	63	4	June 30, 1906
Immigration Act. Barred paupers, anarchists, criminals and diseased persons.						Mar. 26, 1910
Glass-Owen Bill. Established a Federal Reserve system.		298	60	43	25	Dec. 23, 1913
Federal Trade Commission. Established to enforce anti-trust laws.		No roll-call vote		53	16	Sept. 26, 1914
Clayton Antitrust Act. Prohibited monopolistic price discrimination, restrictive sales or leases, incorporate stock holding, interlocking directorates of competing companies capitalized at \$1,000,000 or more. Exempted labor from antitrust laws and declared peaceful picketing legal.		244	54	35	24	Oct. 15, 1914
Federal Farm Loan Act. Created system of land banks to lend money to farmers on their land and permanent improvements.		No roll-call vote		58	5	July 17, 1916
Keating-Owen Act. Forbade shipping in interstate commerce of goods produced by children. (Declared unconstitutional in 1918.)		337	46	52	12	Sept. 1, 1916
Adamson Act. Limited working hours of railroad employees to 8 per day on interstate railroads.		259	36	43	28	Sept. 3-5, 1916*
Burnett Immigration Bill. Required literacy test for immigrants.		308	87	64	7	Vetoed, Jan. 29, 1917
		285	(Reconsideration vote) 106	62	19	Feb. 5, 1917
Armed Neutrality Act. Allowed American vessels to be armed in war zones.		...	...	Filibustered		Defeated, Mar. 4, 1917
Declaration of War. Against Germany (World War I).		373	50	82	6	Apr. 6, 1917
National Prohibition Act (Volstead Act). Prohibited manufacture, transportation and sale of beverages containing more than .5 per cent alcohol.		321	70	Voice vote approval		Vetoed, Oct. 27, 1919
		176	(Reconsideration vote) 55	65	20	Oct. 28, 1919
Treaty of Versailles.	Dem. Rep.	No vote required		4 35	42 13	Defeated, Nov. 19, 1919
Treaty of Versailles.	Dem. Rep.	No vote required		21 28	23 12	Defeated, Mar. 19, 1920
Emergency Quota Act. Limited annual number of immigrants from any country to 3 per cent of that nationality living in U. S. in 1910. (Renewed in 1922 for two more years.)		No record vote		78	1	May 19, 1921
Federal Intermediate Credit Act. Lent money to farmers to extent of 75 per cent of value of harvested crops and livestock.		277	3	No record vote		Mar. 4, 1923

* As Sept. 3 was a Sunday, the bill was re-signed on the following Tuesday.

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Bonus Bill. Provided 20-year endowment policies for veterans.	Dem. Rep. F.L. Soc. Ind.	177 175 1 1 1	20 34	32 33 2	9 8	Vetoed, May 15, 1924
			(Reconsideration vote)			
	Dem. Rep. F.L. Soc. Ind.	145 166 ... 1 1	21 57	27 30 2	9 17	May 19, 1924
Immigration Quota Law. Limited annual number of immigrants to 2 per cent of each country's residents in U. S. in 1890. After 1927, the number was to be limited annually to 150,000. Did not apply to nations of Western Hemisphere.		308	58	69	9	May 26, 1924
World Court Membership.	Dem. Rep. F.L.	No vote required		36 40 ..	2 14 1	Jan. 27, 1926
Kellogg-Briand Pact. Outlawed wars and prescribed arbitration of international disputes.		No vote required		85	1	Jan. 15, 1929
Agricultural Marketing Act. Created federal farm board with power to lend money to farm co-operatives and to create stabilization corporations to buy farm surplus and to store and sell abroad to maintain prices.	Dem. Rep. F.L.	121 245 1	32 2 ...	33 21 ..	2 32 ..	June 15, 1929
Hawley-Smoot Tariff. Very high protective tariff, averaging 40.08 per cent but giving President power to initiate reduction or increase in rates.	Dem. Rep. F.L.	14 208 ...	132 20 1	5 39 ..	30 11 1	June 17, 1930
War Debt Moratorium. Provided for moratorium on payment of interest and war debt installments by nations indebted to U. S.	Dem. Rep. F.L.	120 196 1	95 5 ...	33 36 ..	6 6 ..	Dec. 23, 1931
Reconstruction Finance Corporation. Established with a working fund of \$500,000,000 and power to borrow more to release frozen assets in banks and mortgage companies and to help bankrupt railroads.	Dem. Rep.	153 182	43 12	29 34	5 3	Jan. 22, 1932
Norris-LaGuardia Act. Limited granting of injunctions against labor; required open testimony in open court and outlawed yellow dog contracts.		363	13	75	5	Mar. 23, 1932
3.2 Percent Liquor Law. Legalized manufacture and sale of 3.2 wines and beers.	Dem. Rep.	No record vote		33 10	19 17	Mar. 22, 1933
Civilian Conservation Corps. Created to relieve unemployment and to work at reforestation, road building and flood control.		No roll-call vote		No roll-call vote		Mar. 31, 1933
Agricultural Adjustment Act. Created the AAA, which was authorized to limit acreage on specified crops at farmers' option and to pay benefits to farmers; money for this purpose to be raised by a process tax, which was declared unconstitutional Jan. 16, 1936.		315	98	52	31	May 12, 1933
Tennessee Valley Authority. Established to develop and sell electric power, to serve as yardstick for electricity rates, to develop rural electrification, to establish flood control, and to produce fertilizer.	Dem. Rep. F.L.	284 17 5	2 89 ...	48 14 1	3 17 ..	May 18, 1933
Federal Securities Act. Required that all stock and bond issues be registered and approved.		No roll-call vote		No roll-call vote		May 27, 1933
Home Owners Refinancing Act. Established the HOLC, which took over mortgages in exchange for bonds in order to save home owners from losing homes.		383	4	No record vote		June 13, 1933
Glass-Steagall Banking Act. Created Federal Deposit Insurance Corporation to insure deposits up to \$5000 (later \$10,000); required that private banks be either investment or deposit banks, but not both.		No record vote		No roll-call vote		June 16, 1933

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
National Industrial Recovery Act. Created NRA; authorized establishment of trade associations; suspended antitrust laws; authorized drawing-up of codes of Fair Competition to be accepted by President; guaranteed collective bargaining and required employers to accept approved maximum and minimum wage provisions. (Declared unconstitutional in 1935.)	Dem. Rep. F.L.	266 53 4	25 50 ...	46 10 1	4 20 ..	June 16, 1933
Gold Reserve Act. Gave President power to devalue gold and to impound for treasury all gold in Federal System and to establish Exchange Stabilization Fund.	Dem. Rep. F.L.	287 68 5	2 38 ...	55 10 1	1 22 ..	Jan. 30, 1934
Farm Mortgage Refinancing Act. Created Federal Farm Mortgage Corporation to assist farmers in payment of mortgages on easier interest terms.		No record vote		No record vote		Jan. 31, 1934
Tydings-McDuffie Act. Gave the Philippine Islands independence.	Dem. Rep. F.L.	No roll-call vote		51 16 1	.. 8 ..	Mar. 24, 1934
Securities and Exchange Act. Established Securities and Exchange Commission; required licensing of stock exchanges; made certain speculative practices illegal; gave Federal Reserve Board power to fix margins; required full financial statements from registered companies.	Dem. Rep. F.L.	254 22 4	11 73 ...	47 15 ..	1 12 ..	June 6, 1934
Trade Agreements Act. Authorized President to reduce tariffs by as much as 50 per cent of prevailing rates for those countries which granted the U. S. most favored nation treatment without the need for Senatorial ratification for three years.	Dem. Rep. F.L.	No record vote		51 5 1	5 28 ..	June 12, 1934
National Housing Act. Created Federal Housing Administration to administer funds for modernizing homes and for lending for new construction.		176	19	No record vote		June 28, 1934
Federal Farm Bankruptcy Act (Frazier-Lemke Act). Declared moratorium on farm mortgage foreclosures. (Declared unconstitutional in May, 1935.)		No record vote		60	16	June 28, 1934
World Court Ratification. (Defeated in Senate by lack of 2/3 majority vote.)	Dem. Rep. F.L. Prog.	No vote required		43 9	20 14 1 1	Defeated, Jan. 29, 1935
National Labor Relations Act (Wagner-Connelly Act). Created the NLRB with power to determine appropriate collective bargaining unit subject to elections they supervised at request of the workers; to certify the duly chosen trade union and to take testimony about unfair employer practices and issue cease and desist orders.	Dem. Rep. F.L. Prog.	No record vote		49 12 1 1	4 8	July 5, 1935
Social Security Act. Created social security board to administer old age benefits based on earnings before the age of 65; unemployment administered under state laws and grants to states to aid the needy aged, blind, orphans, widows, etc.		372	33	76	6	Aug. 14, 1935
Banking Act of 1935. Increased power of Federal Reserve Board of Governors over open market and credit transactions.		No record vote		No record vote		Aug. 23, 1935
Public Utilities Act (Wheeler-Rayburn Act). Required all public utilities to register with the SEC and limited utility holding corporations to first degree unless necessity required greater complexity.	Dem. Rep. F.L. Prog.	203 7 3 6	59 83	No record vote		Aug. 26, 1935
Farm Mortgage Moratorium Act. Allowed three-year moratorium on foreclosures with court permission upon payment of reasonable rental.		No record vote		No record vote		Aug. 29, 1935
Neutrality Act. Allowed President, for 6 months, to prohibit exports of arms, etc. (or their transportation by U. S. vessels) to belligerent countries.		211	83	79	2	Aug. 31, 1935

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Soldiers' Bonus Bill. Made 9-year 3-per cent bonds redeemable on demand.	Dem.	265	29	56	9	Vetoed, Jan. 24, 1936
	Rep.	72	30	15	7	
	F.L.	3	...	2	..	
	Prog.	6	...	1	..	
	(Reconsideration vote)					
	Dem.	248	32	57	12	Jan. 27, 1936
	Rep.	66	29	16	7	
	F.L.	3	...	2	..	
	Prog.	7	...	1	..	
Soil Conservation and Domestic Allotment Act. Granted payments to farmers who let their land lie fallow or planted cover crops.	Dem.	246	25	49	9	Mar. 2, 1936
	Rep.	20	64	5	11	
	F.L.	1	1	1	..	
	Prog.	...	7	1	..	
Reciprocal Trade Agreement Act. Extended to June, 1940, period during which President is authorized to negotiate foreign trade under Trade Agreements Act of 1934.		284	0	58	24	Mar. 1, 1937
Neutrality Act. Forbade export of arms and ammunition to belligerents, the sale in this country of belligerents' securities, the use of American ships for carrying munitions; required belligerents to pay upon purchase and carry all purchases in their own ships (cash and carry clause).		377	12	41	15	May 1, 1937
Judiciary Act. Allowed voluntary retirement of Supreme Court justices and other federal court judges on full pension at age of 70.		No roll-call vote		Unanimous, no roll-call vote		Aug. 25, 1937
National Housing Act. Established the U. S. Housing Authority to administer loans to local communities and states for rural and urban construction. (Amended in 1938.)		275	86	64	16	Sept. 1, 1937
Agricultural Adjustment Act. Continued soil conservation program; provided parity payments and commodity loans to farmers; established crop insurance corporations and ever-normal granary plan.	Dem.	243	54	53	17	Feb. 16, 1938
	Rep.	14	74	2	11	
	F.L.	5	...	..	2
	Prog.	1	7	..	1	
	Ind.	...	...	1	..
Wage and Hours Act. Provided minimum wage of 25 cents to rise to 40 cents after 6 years; limited hours from 44 per week the first year to 40 after the third year; goods produced by "oppressive child labor" could not be shipped in interstate commerce.	Dem.	247	41	No record vote		June 25, 1938
	Rep.	31	48			
	F.L.	5	...			
	Prog.	7	...			
Alien Registration Act (Smith Act). Required fingerprinting of all aliens in U. S.; made it unlawful for anyone to advocate or teach overthrow of U. S. government or to belong to any group advocating such.		382	4	No record vote		June 28, 1940
Selective Service Act. Established system for compulsory service in armed forces. (Extended in 1941.)	Dem.	211	33	50	17	Sept. 16, 1940
	Rep.	52	112	8	10	
	F.L.	...	1	..	2	
	Prog.	...	2	..	1	
	Ind.	...	...	..	1
	A.L.	...	1	..	..
Lend-Lease. Provided system whereby U. S. lent goods and munitions to democratic nations in return for services and goods.		260	165	60	31	Mar. 11, 1941
Selective Service Act Extension. Extended period of service to not more than 30 months in time of peace and eliminated 900,000-man limit of Army.	Dem.	182	65	38	16	Aug. 18, 1941
	Rep.	21	133	7	13	
	Prog.	...	3	..	1	
	A.L.	...	1	..	..
Declarations of World War II: Against Japan.	Dem.	235	...	56	..	Dec. 8, 1941
	Rep.	149	1	24	..	
	Prog.	3	...	1	..	
	Ind.	...	...	1	..
	A.L.	1	...	..	..
Against Germany.		393	0	88	0	Dec. 11, 1941

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
U. N. Charter ratification. (For full text of Charter, see index.)	Dem. Rep. Prog.	No vote required		53 35 1	.. 2 ..	July 28, 1945
Case Bill. Would have set up mediation board, established enforceable 30-day cooling-off periods in labor disputes, outlawed boycotts and sympathy strikes, and authorized court injunctions.	Dem. Rep. Prog. A.L.	97 133	91 13 1 1	33 28	13 6 1 ..	Vetoed, June 11, 1946
(Defeated in House by lack of 2/3 majority to override veto.)	Dem. Rep. Prog. A.L.	96 159	118 15 1 1	(Reconsideration vote)		Defeated, June 11, 1946
British Loan Act. Established \$3,750,000,000 credit to Britain, including \$650,000,000 in lend-lease.	Dem. Rep. Prog. A.L.	157 61 ... 1	32 122 1 ...	29 17	15 18 1 ..	July 15, 1946
Atomic Energy Commission. Created five-man controlled commission without military representation but with military liaison; permitted Army and Navy to make atomic weapons; forbade distribution of fissionable materials or atomic energy information.		No record vote		No record vote		Aug. 1, 1946
Greek-Turkey Aid Bill. Authorized \$400,000,000 to furnish aid to Greece and Turkey upon application, subject to withdrawal upon request of countries, of the U. N. Security Council or General Assembly, or of President if improperly used or unnecessary.	Dem. Rep. A.L.	160 127 ...	13 93 1	32 35 ..	7 16 ..	May 22, 1947
Treaty Ratifications: With Italy.	Dem. Rep.	No vote required		37 42	3 7	June 14, 1947
With Rumania.		No vote required		Voice vote approval		June 14, 1947
With Bulgaria.		No vote required		Voice vote approval		June 14, 1947
With Hungary.		No vote required		Voice vote approval		June 14, 1947
Taft-Hartley Bill (Labor-Management Relations Act, 1947). Prohibited closed shops but allowed union shops by secret vote of majority of employees; made unions subject to damage suits for unfair labor practices, such as boycotts or jurisdictional strikes; required unions to file financial reports; required union leaders to file statements that they are not Communistic.	Dem. Rep. A.L.	103 217 ...	66 12 1	17 37 ..	15 2 ..	Vetoed, June 20, 1947
	Dem. Rep. A.L.	106 225 ...	71 11 1	20 48 ..	22 3 ..	June 23, 1947
Presidential Succession Act. Made Speaker of House and President of Senate pro tempore next in line after Vice President.		365	11	50	35	July 18, 1947
National Security Act of 1947. Reorganized and co-ordinated armed forces under National Military Establishment headed by Secretary of Defense (of Cabinet rank) and including Secretaries of the Army, the Navy and the Air Force.		Voice vote approval		Voice vote approval		July 26, 1947
Foreign Assistance Act of 1948. Authorized \$5.3 billion 1-year European Recovery Program, \$275 million for military aid to Greece and Turkey, \$463 million in economic and military aid for China, \$60 million for U. N. Fund for Children.	Dem. Rep. A.L.	150 167 0	11 62 2	Voice vote approval		Apr. 3, 1948
Selective Service Act. Provided for registration of all men 18-25 and induction of enough men 19-25 to maintain Army of 837,000, Navy and Marine Corps of 666,882, and Air Force of 502,000.		259	136	Voice vote approval		June 24, 1948
Displaced Persons Bill. Admitted 205,000 European displaced persons, including 3,000 orphans.		Voice vote approval		Voice vote approval		June 25, 1948
Foreign Aid Appropriations. Appropriated funds for 1 year: \$5.055 billion for ERP, \$400 million for China, \$1.3 billion for occupied areas, \$225 million for Greece and Turkey, \$35 million for U. N. Fund for Children, \$70,710,228 for IRO.		318	62	Voice vote approval		June 28, 1948

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Housing Bill. Authorized Federal loans for private construction of low-cost homes and apartments; liberalized loans to manufacturers of prefabricated houses.		351	9	Voice vote approval		Aug. 10, 1948
Bill to raise salaries: President's, \$75,000 to \$100,000 with new \$50,000 tax-free allowance; Vice President's and Speaker's, \$20,000 to \$30,000 with \$10,000 tax-free allowance.	Dem. Rep. A.L.	Voice vote approval		42 26	0 9	Jan. 19, 1949
ERP authorization: \$5,430,000,000 for European recovery, consisting of \$1,150,000,000 for April-June and \$4,280,000,000 for fiscal year starting July 1.		Voice vote approval		Voice vote approval		Apr. 19, 1949
Housing and slum-clearance bill. Provided for 810,000 dwelling units in 6 years, 5-year slum-clearance program, \$325,000,000 in loans and grants for farm housing aid.		Voice vote approval		Voice vote approval		July 15, 1949
North Atlantic Treaty. (For full text, consult index.)	Dem. Rep.	No vote required		50 32	2 11	July 21, 1949
National Security bill. Changed National Military Establishment to executive Department of Defense; made Departments of Army, Navy and Air Force "military departments."		356	7	Voice vote approval		Aug. 10, 1949
Military Assistance Program. Authorized \$1,314,010,000 in military aid: for Atlantic Pact countries, \$1 billion; Greece and Turkey, \$211,370,000; "general area" of China, \$75,000,000; and South Korea, Iran and Philippines, \$27,640,000.	Dem. Rep. A.L.	172 51 0	24 84 1	Voice vote approval		Oct. 28, 1949
Foreign-aid appropriations: \$5,809,990,000, consisting of \$4,852,380,000 for ERP, \$912,500,000 for Army-occupied areas, \$45,000,000 for Greek-Turkish aid, and \$110,000 for joint Congressional Foreign-Aid Committee.		Voice vote approval		Voice vote approval		Oct. 2, 1949
Minimum-wage bill. Raised minimum wage from 40c to 75c an hour.		131	19	Voice vote approval		Oct. 26, 1949
Farm bill. Supported prices for wheat, corn, cotton, rice, peanuts at 90% of parity through 1950, 80-90% through 1951, and 75-90% on sliding-scale basis thereafter.		175	34	46	7	Oct. 31, 1949
Natural-gas bill (Kerr bill). Would have prevented FPC control on prices for natural gas distributed by interstate pipelines.		176	174	44	38	Vetoed Apr. 15, 1950
Housing bill. Authorized over \$3.5 billion in government loans and mortgage insurance for expansion of housing program. Also turned over to state and local authorities about 150 wartime and veterans' housing projects.		Voice vote approval		Voice vote approval		Apr. 20, 1950
Bill to increase Air Force and Army. Expanded Air Force to 70 groups and from 410,000 to 502,000 men; expanded Army from 592,000 to 837,000 men.		315	4	76	0	July 11, 1950
Social Security bill. Will raise present employer's and employee's 1½% payroll tax to 2% in 1954, 2½% in 1960, 3% in 1965, and 3¼% in 1970; provided financial aid to permanently disabled persons in need.		374	1	Voice vote approval		Aug. 28, 1950
Omnibus appropriations bill. Appropriated \$35.554 billion, including \$62.5 million loan to Spain, \$14,680,084,443 for Defense Dept., \$1.225 billion for rearming Western Europe, \$2.526 billion for Marshall plan, \$26.9 million for Point-4 program.		Voice vote approval		Voice vote approval		Sept. 6, 1950
Defense Production Act of 1950. Gave President power to curb prices, wages, and consumer credit, and to increase defense production.		Voice vote approval		Voice vote approval		Sept. 8, 1950
Bill to draft doctors, dentists, etc., up to 50 years of age, for 21-mo. service.		Voice vote approval		Voice vote approval		Sept. 9, 1950

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Internal Security Act of 1950. Provided for registering of Communists and their internment in times of emergency.	Dem.	186	18	24	6	Vetoed
	Rep.	126	1	27	1	Sept. 22,
	A.L.	0	1	...	...	1950
			(Reconsideration vote)			
	Dem.	161	45	26	10	Sept. 23,
	Rep.	125	2	31	0	1950
	A.L.	0	1	...	...
		286	30	Voice vote approval		Sept. 27, 1950
Emergency defense-appropriations bill. Appropriated \$17,-099,902,285, including \$3.734 billion for Navy, \$3.166 billion for Army, \$260 million for atomic-weapon research, etc.				Voice vote approval		Sept. 27, 1950
Civil-defense bill. Provided \$3.1 billion to be supplemented by state and local governments for bomb shelters and other civil defense.		Voice vote approval		Voice vote approval		Jan. 12, 1951
GI insurance law. Provided free \$10,000 life insurance to all armed-forces personnel.		Voice vote approval		Voice vote approval		Apr. 25, 1951
Reciprocal Trade Agreements Act. Extended reciprocal trade agreement act to June 12, 1953, and directed President to end any concessions to Soviet bloc.		Voice vote approval		Voice vote approval		June 16, 1951
Draft act. Extended draft to July 1, 1955, and increased service to 24 months; provided preliminary study for universal military service.		339	41	Voice vote approval		June 19, 1951
Pension bill. Raised to \$120 a month the \$60-\$72 pensions to veterans disabled by nonservice disabilities.		Voice vote approval		Voice vote approval		Vetoed Aug. 6, 1951
			(Reconsideration vote)			
		318	45	69	9	Sept. 18, 1951
German peace resolution. Declared state of war with Germany ended.		376	0	Voice vote approval		Oct. 19, 1951
Taft-Hartley Law amendment. Permitted union-shop contracts without first polling employees.		307	18	Voice vote approval		Oct. 22, 1951
Atom-data bill. Authorized exchange of certain nonweapon atom data with friendly nations.		Voice vote approval		Voice vote approval		Oct. 30, 1951
Mutual Security Appropriation Bill. \$7,328,903,976 voted for global military and economic aid, including \$100 million for Spain.		Voice vote approval		Voice vote approval		Oct. 31, 1951
Japanese Peace Treaty. Formally ended state of war declared Dec. 8, 1941.		No vote required		66	10	Mar. 20, 1952
Tidelands Oil Bill. Gave clear title to states for submerged oil and other mineral deposits off their shores.		247	89	50	35	Vetoed, May 29, 1952
McCarran-Walter Immigration and Nationality Act. Ended racial bars on immigration and retained quota system based on national origin.		205	53	Voice vote approval		Vetoed, June 25, 1952
			(Reconsideration vote)			
	Dem.	107	90	25	18	June 27,
	Rep.	170	23	32	8	1952
	Ind.	1	0	...	...
West German Peace Contracts. Established working basis for relations with Bonn Government.		No vote required		77	5	July 1, 1952
New Puerto Rican Constitution. Made Puerto Rico a commonwealth and gave it greater home rule.		Voice vote approval		Voice vote approval		July 3, 1952
Fair Trade Acts of 1952. Allowed manufacturers and retailers to set prices on trade-marked articles where state laws concur.		196	10	64	16	July 14, 1952
Korea "G.I. Bill of Rights." Granted Korean veterans with 90 days service as of June 27, 1950, rights and benefits similar to those received by veterans of World War II.		322	1	Voice vote approval		July 16, 1952

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Social Security Amendment. Increased Social Security benefits to aged by 12½% and authorized pensioners to earn up to \$75 a month. Minimum payments set at \$5 a month.		Voice vote approval		Voice vote approval		July 18, 1952
Tidelands Oil Law. Gave coastal states right to all minerals in submerged lands within their historic boundaries; Federal government retained control of remainder of continental shelf.	Dem. Rep. Ind.	97 188 0	59 18 1	Voice vote approval		May 22, 1953
Foreign-Aid Authorization Act. Provided \$4,531,507,000 for military and economic aid to 53 free countries.	Dem. Rep. Ind.	126 94 1	29 80 0	Voice vote approval		Aug. 7, 1953
Refugee Immigration Act. Admitted 214,000 refugees in next 3 years over immigration quotas.		190	44	Voice vote approval		Aug. 7, 1953
Statehood for Hawaii and Alaska. (Allowed to die in House.)	Rep. Dem. Ind.	... ... ...	... ... ...	3 42 1	41 2 0	Defeated, 1954
Bricker Amendment. Would have limited President's treaty-making power. (Defeated by lack of ⅔ majority vote.)	Rep. Dem. Ind.	... ... ...	... ... ...	32 28 0	16 14 1	Defeated, Feb. 25, 1954
Cut in excise tax by \$999 million a year.		395	1	72	8	Apr. 1, 1954
Authorization of St. Lawrence Seaway.	Rep. Dem. Ind.	144 96 1	64 94 0	Voice vote approval		May 13, 1954
Extension of Reciprocal Trade Act for 1 year.		Voice vote approval		Voice vote approval		July 1, 1954
Public-housing bill. Allowed 35,000 units for year, but limited housing to cities where Federal slum clearance had displaced families.		358	30	59	21	Aug. 2, 1954
Tax revision to cost \$1.363 million in revenue.	Rep. Dem. Ind.	201 114 0	3 73 1	42 19 0	3 22 1	Aug. 16, 1954
Communist Control Act. Outlawed Communist party, though membership in party was not made crime.		265	2	79	0	Aug. 24, 1954
Compromise Mutual Security Appropriation of \$5,243,575,-795, of which \$2,781,499,816 is "new money."		188	77	Voice vote approval		Aug. 26, 1954
Farm bill. Provided flexible price support.		208	47	44	28	Aug. 28, 1954
Amendment to Atomic Energy Act of 1946. Allowed private interests to enter field of atomic power.	Rep. Dem. Ind.	Voice vote approval		6 38 1	35 6 0	Aug. 30, 1954
Social Security benefits increased and extended to additional 10,000,000 persons.		Voice vote approval		Voice vote approval		Sept. 1, 1954
Death penalty for peacetime espionage		Voice vote approval		Voice vote approval		Sept. 3, 1954
Revocation of citizenship of persons convicted by conspiracy to overthrow government by force.		Voice vote approval		Voice vote approval		Sept. 3, 1954
Federal pay raise bill. Raised salaries of Senate and House members to \$22,500; Vice President and House Speaker to \$35,000 (plus additional \$10,000 for expenses); Justices of U. S. Supreme Court to \$35,000; etc.	Dem. Rep.	119 104	53 60	Voice vote approval		Mar. 2, 1955

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Military pay raise bill. Provided pay raise for armed services amounting to \$745 million per year.		Voice vote approval		Voice vote approval		Mar. 31, 1955
Postal pay raise bill. Increased pay of postal workers by average of 8%.		407	1	78	0	June 10, 1955
Selective Service bill. Extended draft 4 years and doctors' draft 2 years.		388	5	Voice vote approval		June 30, 1955
Funds for Dixon-Yates transmission line included in appropriations bill.		Voice vote approval		Voice vote approval ¹		Canceled, July 11, 1955 ²
Military reserves bill. Raised present 800,000-man reserve to 2,900,000 by mid-1959.	Dem. Rep.	169 146	38 40	Voice vote approval		Aug. 9, 1955
Housing bill. Authorized construction of 45,000 public-housing units by mid-1956.	Dem. Rep.	153 35	37 131	Voice vote approval		Aug. 11, 1955
Federal minimum-wage bill. Increased minimum from 75¢ to \$1 per hour.	Dem. Rep.	192 170	29 25	Voice vote approval		Aug. 12, 1955
Harris-Fulbright bill. Would have exempted natural-gas producers from direct Federal rate control.	Dem. Rep.	86 123	136 67	22 31	24 14	Vetoed, Feb. 17, 1956
		(No reconsideration vote)				
Upper Colorado River project bill. Authorized \$756 million for irrigation and reclamation in Upper Colorado River basin.		Voice vote approval		Voice vote approval		Apr. 11, 1956
Agricultural Act of 1956. Would have set up "soil bank" program and would have restored high rigid support prices.	Dem. Rep.	189 48	35 146	35 15	4 31	Vetoed, Apr. 15, 1956
		(Reconsideration vote)				
(Defeated in House by lack of 2/3 majority vote to override veto.)	Dem. Rep.	182 20	38 173	...	...	Defeated, Apr. 18, 1956
Authorization of \$1.2 billion "soil bank" program for paying farmers to withdraw acres from production.	Dem. Rep.	172 132	12 47	Voice vote approval		May 28, 1956
Highway bill. Called for expenditure of \$33.482 billion for road building (\$28 057 billion Federal expenditure and \$5.425 billion outlay by states).		Voice vote approval		89	1	June 29, 1956
National-defense bill. Appropriated \$34.6 billion for national defense, including \$16.5 billion for Air Force.		377	0	88	0	July 2, 1956
School bill. Would have provided \$1.6 billion in Federal aid for school construction.	Dem. Rep.	119 75	105 119	...	...	Defeated, July 5, 1956 ³
Foreign-aid authorization bill. Authorized \$4 billion for foreign-aid program for another year.		No record vote		No record vote		July 18, 1956
Social Security bill. Made women eligible for benefits at 62, totally disabled workers at 50.		Voice vote approval		Voice vote approval		Aug. 1, 1956
Housing bill. Provided for 70,000 new Federally subsidized housing units for next 2 years and liberalized Federal aid to private housing.		Voice vote approval		Voice vote approval		Aug. 7, 1956
Eisenhower Doctrine. Provided economic and military aid to Mideast nations.		350	60	73	19	Mar. 9, 1957
Housing bill. Permitted lower minimum down payments on government-insured housing: 3% on 1st \$10,000 of appraised value, 15% on next \$6,000, 30% on next \$4,000.		Voice vote approval		Voice vote approval		July 12, 1957
U.S. ratification of treaty of International Atomic Energy Agency (IAEA).	Dem. Rep.	No vote required		35 32	9 10	July 29, 1957
Bill authorizing New York State to build \$600-million, 1,800,000-kw power plant at Niagara Falls.		313	75	Voice vote approval		Aug. 21, 1957
Mutual security appropriations bill. Provided \$2,768,760,000 in new funds and \$667,050,000 in carry-over funds.		194	122	59	19	Sept. 3, 1957
Bill protecting FBI files from unrestricted use by defendant in criminal cases.		351	0	74	2	Sept. 3, 1957
Civil Rights Act of 1957. Created 6-member Civil Rights Commission; provided for additional Assistant Attorney General to head special Civil Rights section within Justice Department; barred interference with voting rights.	Dem. Rep.	128 151	82 15	23 37	15 0	Sept. 9, 1957

Housing bill. Provided \$1.85 billion to stimulate housing construction.		Voice vote approval	86	0	April 1, 1958	
Road bill. Added \$1.8 billion to previous appropriations.		Voice vote approval	Voice vote approval		April 16, 1958	
Postal rates and pay raise bill. Increased first-class mail from 3c to 4c per oz., etc. Provided 7½% pay raise to postal employees.		379	0	88	0	May 27, 1958
Jobless aid bill. Extended by 50% the duration of unemployment benefits for those who had exhausted their benefits. Provided on loan basis to the states, to be repaid by them.	Dem. Rep.	60 163	148 17	} 88	0	June 4, 1958
Alaska statehood bill. (Alaska has also approved.)	Dem. Rep.	117 91	81 85			
Reciprocal trade bill. Extended program for 4 years; gave continued power to President to reduce tariffs on reciprocal by 20%.	Dem. Rep.	} 161	56 {	40 32	6 12	Aug. 20, 1958
Presidential pension bill. Gave \$25,000 annually to ex-Presidents and \$10,000 to their widows.				165	45	Voice vote approval		Aug. 25, 1958
Foreign aid bill. Appropriated \$3.3 billion for fiscal 1959, plus \$644 million in carryover.	Dem. Rep.	Voice vote approval		25 26	9 8	Aug. 29, 1958
Debt limit rise. Raised limit to \$283 billion permanently and to \$288 billion temporarily.		Voice vote approval		57	20	Sept. 2, 1958
Science education bill. Provided loans and fellowships to teachers and guidance counselors; encouraged foreign language study. (\$800 million over 4 years.)	Dem. Rep.	Voice vote approval		37 29	7 8	Sept. 2, 1958
Bill admitting Hawaii as 50th state.	Dem. Rep.	203 120	65 24	46 30	14 1	Mar. 18, 1959
Extension of draft for four years, until July 1, 1963.	Dem. Rep.	Voice vote approval		61 30	0 1	Mar. 23, 1959
Debt limit rise. Raised limit to \$285 billion permanently and to \$295 billion temporarily.	Dem. Rep.	167 88	69 48	Voice vote approval		June 30, 1959
Foreign aid bill. Authorized \$3.6 billion for fiscal 1960.	Dem. Rep.	182 89	83 59	Voice vote approval		July 24, 1959
Veterans' pension revision. Increased and revised payments on basis of incomes.		Voice vote approval		Voice vote approval		Aug. 29, 1959
Public works appropriation bill. Appropriated \$1,185,309,903 for fiscal 1960.	Dem. Rep.	266 46	4 89	55 18	1 14	Vetoed, Sept. 9, 1959
(First Eisenhower veto to be overridden.)	Dem. Rep.	260 20	5 116	60 12	2 21	Sept. 10, 1959
Labor Reform Act of 1959. Guaranteed more democratic union procedure, etc.	Dem. Rep.	214 138	51 1	} 95	2	Sept. 14, 1959
Farm surplus bill. Extended for two years program of disposing of surplus farm products overseas; authorized "food stamp" plan through which \$250 million worth of surplus food would be distributed annually for two-year period to needy Americans.		Voice vote approval					Voice vote approval		Sept. 21, 1959
Gasoline tax bill. Raised Federal tax on gasoline from 3¢ to 4¢ per gallon for 21 months starting Oct. 1, 1959.		Voice vote approval		70	11	Sept. 21, 1959
Housing bill (third proposed). Authorized \$1 billion, including \$650 million for slum clearance in two-year period.		Voice vote approval		86	7	Sept. 23, 1959

¹ Passed with added provisions and sent back to House. ² Dixon-Yates contract ordered canceled by President and funds dropped by Congress from appropriations bill. ³ Bill killed, since all money bills must originate in House.

THE AGES OF MAN

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It is interesting and useful to think of human life as a series of ages, or stages, each with its characteristic *developmental tasks*. For instance, an infant must learn to walk and to talk. These are among the first of his developmental tasks. He could not progress from infancy to childhood without achieving these tasks. Then he must learn the 3 R's and the games of childhood, among other developmental tasks, in order to go on to the next stage of adolescence.

The developmental tasks of the individual are those things that he must do in order to go through life in a healthy and satisfying way.

We shall think of six ages or stages of the human life span. In each age a person must achieve his developmental tasks in order to move on to the next stage with a fair prospect of success at that level.

Even before birth there are developmental tasks of a purely biological nature. In the human embryo each organ has its place and its time of origin. The eye, for example, appears at the proper place on the head of the embryo and at a certain time in the process of embryonic development. If it does not arise at the appointed time it will never be a fully satisfactory organ, and furthermore its failure will endanger the other organs which are due to follow it. The developmental arrest of one organ, such as the lungs, will upset the adjustment of other organs, such as the heart and the liver, and produce a defective person.

The purely biological tasks of the embryo are followed after birth by developmental tasks which are partly biological, and partly the result of being in a society and being a human person.

There is a particular time when it is relatively easy to achieve a particular developmental task—the body is ready, and the social environment demands it. No one would try to teach a baby to walk at 6 months, because his bones and muscles and nerves have not yet developed to the point where he is biologically ready. He becomes ready at 9 or 10 or 11 months, and then it would be stupid or worse to prevent him from learning to walk. This is the "teachable moment," when learning the task takes place with the least effort and the most success.

If parents and teachers could fully grasp the principle of the teachable moment, they would have a much more pleasant experience of raising and teaching children.

INFANCY AND EARLY CHILDHOOD: AGE 0-5

Learning to Walk

The child normally learns to walk when his body is ready, with a minimum of stimulation and assistance from other people. Normal babies learn to walk

between the ages of 9 and 15 months. Probably nothing will be gained by fond parents who try to push their child to walk as early as possible. The best thing is to enjoy the baby's learning to walk, just as the baby does, by playing with him and encouraging him to toddle about. There might be a little danger in forcing the child to stand alone and letting him fall over if he is not ready to balance himself. This might deprive him of some of the priceless self-assurance that a young child should have. If a baby is not standing and taking a few steps at least by the age of 15 months, it would be well to ask the advice of a physician.

Learning to Take Solid Foods

The baby's digestive system gradually grows ready to digest and assimilate a variety of foods, and his teeth and gums develop to the point where he can eat semi-solid and solid foods. This task is accomplished more slowly than the task of walking, and with considerable variation in different social groups. Different societies have different ideas as to what is the best way to wean a child, and the various ways of dealing with a child as he achieves this task probably have far-reaching consequences for his personality in his later life.

From what is now known, it seems that the best practice is to follow the cues given by the child as to when he is ready to go from a milk diet to solid foods. Some will be ready before others, and will show this by eating vegetables and other semi-solid baby foods with apparent relish. As for the best age to wean the child, nobody knows. Probably the weaning should be a gradual process, taking place mainly in the second year of life. It is *most important that the child be given affectionate handling while being fed*. The baby should be held and cuddled while young, and after he is ready to sit in a chair to eat, he should be treated by his mother or nurse as though feeding time was fun time. If a baby cries after eating, or refuses to eat, a physician should be consulted. But sometimes a well-meaning mother feeds a child so much and so often that the child does the sensible thing by refusing.

Learning to Talk

The task of learning to talk is normally accomplished between the ages of 12 and 18 months. Long before this the biological ability to make sounds is adequate for the purposes of speech, but the child has to grasp the idea that a word stands for something, and has to develop and organize his repertory of sounds from which he can fashion words. Apparently the task of learning to talk requires people to teach the child, making it more a socially instigated than a biologically instigated task. Children do not learn to talk when reared in social isolation, but they do learn to walk after a fashion. The growth of vocabulary and the learning of grammar come on, like growth in height and numbers of teeth, once the basic task of learning to talk has been achieved.

Babies learn to talk just by living with people who talk. In fact, they learn to talk by a process of unconscious imitation which seems uncanny in the way the young child reproduces the speech mannerisms as well as the dialect

of the parents and older brothers and sisters. Some people think they should talk "baby talk" to babies. This may not do any harm and is a way of expressing love for a child, but it probably does not help the young child in correcting his mistakes in pronunciation and grammar. On the other hand, parents should not correct the grammar and pronunciation of children as young as 2 or 3. Children will eventually correct themselves if they hear good speech in the home.

Learning to Control the Elimination of Body Wastes

In our society the task of learning to urinate and defecate at socially acceptable times and places is one of the more difficult developmental tasks of children, partly because we interfere with the purely biological aspect of the task. The nerves that control the sphincter muscles for voluntary urination are not fully developed until sometime after the age of two, while those which control defecation mature somewhat earlier. Nevertheless, a kind of pseudo-learning of toilet habits can take place earlier through conditioning the baby to the toilet seat, the soap-stick, etc. But the average child does not achieve full bladder control at night until his fourth birthday.

The simpler societies do not stress this task, but expect the child to learn naturally, by imitating his elders. He may achieve the task somewhat later, but not much later than children in our own culture.

Toilet training is the first *moral* training for the child—the first time he is asked to inhibit an impulse because of social demand. Hence it is the first step in character training, and exceedingly important. There are two principles to follow. The first is to teach the child to *understand* what he is being asked to learn. This could easily be carried too far in the case of toilet habits. It would be ridiculous to give a 2-year-old long lectures on why it is desirable to keep his diapers clean; but the mother can explain that it is messy to soil oneself and that a part of being a good child consists in being clean. The other principle is equally important, and will serve to correct a tendency to overdo the principle of understanding. The second principle is to rely on the baby's tendency to *imitate* parents and older brothers and sisters. Babies are proud to go to the bathroom like their fathers and mothers and brothers and sisters. They can be praised for acting "grown-up" in this way.

Learning Sex Modesty

The child by the age of 3 or 4 has discovered the genital organs as areas of pleasure and has learned to fix a great deal of attention on his own sexual organs. This is partly because older people are so much interested in his sexual behavior. The child is taught to cover his genital organs and to be interested in sexual differences and sexual behavior. The kinds of attitudes and feelings he develops about sex in these early years probably have an abiding effect upon his sexuality throughout his life.

Learning to Distinguish Right and Wrong and Developing a Conscience

From as early as the second year of his life the child begins to learn the meaning of good and bad, as the things for which he is rewarded or punished. He learns that striking people, breaking toys, taking forbidden things, and going to forbidden places are bad. He also learns to associate toilet-training and sexual training with morality in this way. This is a long-drawn-out task of slowly getting substance for the concepts of good and bad.

This task is capped at the age of 4 or 5 or 6 by the child's taking into himself the warning and punishing voices of his parents, and so starting to develop his moral conscience.

Learning the Simple Concepts of Social and Physical Reality

Once the child has learned that words stand for things, he is ready to begin the never-completed task of forming concepts. A concept is a general term for a class of particular percepts. He learns that many of his particular perceptions can be grouped together and called by one name, such as *animal*, or *good*, or *square*.

Basic Attitudes to Be Achieved at This Age

During the age of infancy there are three basic attitudes whose foundations are laid in ways which will mark the person, for better or for worse, during his entire life.

A Basic Attitude of Trust versus Mistrust. In the child's first year he goes far toward discovering whether he will feel "at home" in the world. The process starts with the child's first explorations of the world, through his mouth. Not only does he satisfy his hunger through sucking; he also gets positive pleasure by feeling things with his mouth. Later he takes in the world through his eyes, ears, and hands.

If the baby is generally comfortable and if his wants are satisfied during this early period he comes to feel "at home" in his world. This happens only when a mother person looks after the child, holds him, loves him, and feeds him. Close personal contact seems to be essential.

Under these circumstances it appears that the child develops a basic sense of trust, a belief in the goodness of the world, taught to him by the familiar and predictable and affectionate qualities of his relations with people in his early years.

When the circumstances of his early experience are the opposite, the child is likely to develop a sense of mistrust and to expect unpleasantness in the world.

A Sense of Autonomy versus Dependence. During his second and third years the baby meets the task of becoming a self-determining, autonomous creature. He acquires a sense of his own individual existence and the power of decision. This is the time when he is toddling about the house, grasping and throwing things, and learning when to *let go* and when to *hold on* in relation to his eliminative organs.

For the parents, this is the period of toilet training, of penning up the baby so that he cannot get into trouble, of teaching him not to touch certain valuable or dangerous objects, and teaching him to control his aggressive feelings. All the time they are really working with or against the child on his task of developing autonomy.

If the child is handled well at this period he acquires a sense of autonomy or of self-decision that will stand him in good stead as he grows up. If he is not handled well, he will either become overdependent and unable to make decisions for himself, or he will become a hostile, willful person.

The secret of good handling in this stage lies in finding a good combination of freedom and protectiveness. Babies at two and three should be allowed as much freedom as is consistent with their safety. They should have a chance to play freely in spaces which are not dangerous and not cluttered up with valuable and breakable things. Furthermore, when they hurt themselves they should be comforted and made to feel that a powerful person is really looking after them and will not allow them to be hurt too severely.

Initiative and Conscience. In the fourth and fifth years the child is developing a basic sense of initiative, or motion into the future. The child asks questions, probing into the unknown world, and he makes things with his toys. If he has developed well, he has lost the fear of being out of sight of his parents.

As the child projects himself into the future, he takes his parents with him. The child *identifies* with his parents, mainly the parent of the same sex. By thinking of himself as his "daddy," the little boy gains assurance for the trying-out of new roles. Thus he becomes aggressive, masterful, attacking in his approach to life. The girl, following her mother's example, becomes endearing, attractive, and indirect in her mode of getting what she wants.

Along with initiative in a child who is developing well must go a set of inner controls over his initiative, lest it carry him too far and hurt himself or other people. This control is provided by the controlling and punishing voice of the parents, which the child takes into himself as part of the process of identification with them.

While we do not fully understand this process of identification, we know that it exists and is crucial in the development of the moral conscience. What the parents must learn is an art and not a science. They must learn a good and effective combination of love and punishment, and above all, they must learn to be *consistent* in their giving of love and punishment. The child learns his morality through his experience of love and punishment. Unless he receives love and punishment consistently for good and bad behavior, he cannot develop a *system* of morality.

Too much punishment will mean too little initiative. Too little love will mean a weak inner voice or inner moral control. Of course, love can be expressed in many ways, and punishment is not limited to physical inflicting of pain. A cold voice or manner which says "we do not love you" is more severe punishment for a young child than a quick slap given the moment he does something wrong.

MIDDLE CHILDHOOD: AGE 6-11

By the time middle childhood is reached, the boy or girl is a person, and takes a hand in deciding how hard to work on developmental tasks, and whether to work harder on one task than on another.

This is an age of expansion—of pushing out of the home into the world of school and of playmates, of pushing physically into a life of games and work, and of pushing mentally into a realm of adult concepts and symbols.

Learning Physical Skills Necessary for Ordinary Games

Our society, both adults and children, sets great store by physical agility and skill in games. Therefore a boy is expected to learn such skills as throwing and catching, kicking, tumbling, swimming, and handling simple tools. A boy is a "sissy" if he does not learn these things. For girls they are not so important, but still a girl is expected to learn to bounce a ball, to jump rope, and to swim.

The very awkward boy has great difficulty in becoming accepted as a playmate unless he makes at least an average achievement in this task.

Learning an Appropriate Masculine or Feminine Social Role

Although there is little biological difference between boys and girls until puberty, the society expects boys to be boys and girls to be girls, starting in babyhood. By middle childhood the expected differences between boys and girls are very great. A boy who is a "sissy" has a bad time of it with his playmates and even with adults. A girl who is a "tomboy" has less trouble, but by the age of 12 or 13 she begins to suffer for it.

The boy learns to play and to like boys' games, to be rougher and more "masculine" than his sister.

By the end of middle childhood the girl should have learned what it is to be "ladylike" in her relations with children and adults.

Acquiring a Social Personality

It is during middle childhood that the structure is built for the social personality—for being friendly or standoffish, for meeting people easily or being shy with strangers, for being sensitive to people or riding roughshod over them.

The girl who is destined to become President of the League of Women Voters is likely to show this by the time she is 10 years old, and so is the girl who will always be socially invisible when she grows up.

The social personality is really a set of social habits which a child learns during middle childhood, in his school and play-group and his family. These social habits are likely to persist into adulthood because a habit tends to persist if it is used over and over again, and if it does not result in such severe disadvantage that a person unlearns it in order to escape its unpleasant consequences. And sometimes a bad social habit persists simply because a person does not learn a better one to take its place.

Parents may wonder what they should do with an over-aggressive or with an over-shy child at this time. Either form of inadequate social personality may be changed somewhat by skillful work on the part of parents and teachers; finding youngsters who can become friends for a shy child and gradually building up this child's self-confidence through his experience of making friends; on toning down aggressiveness by gentle punishment and by the child's experience of losing friends because of his aggressive or selfish behavior. Neither severe punishment nor cotton-wool overprotection will help the child, but he needs the reassurance that can only come from being completely accepted and loved by his parents while he works out his social personality.

Learning the 3 R's and the Concepts Necessary for Everyday Living

During middle childhood a person is expected to learn to read, write, and calculate well enough to get along in American society. This process takes several years and is made up of a number of more specific tasks such as learning to read, to write, to spell, to multiply, to divide, etc. Children are generally biologically ready to start these tasks by the age of 6, and some of them are ready earlier.

The majority of people learn the mental skills well enough by the age of 12 or 13 to get through life in a simple occupation. A minority go on improving these skills through high school and college.

In addition to the mental skills the child learns a store of concepts sufficient for thinking effectively about ordinary social, civic, and occupational matters. By the time a child is ready for school he already has a supply of several hundred concepts. During middle childhood he forms several thousand new concepts, dealing with time, space, number, life, death, health, diet, transportation, housing, communication, city life, democracy, work, family, religion, business, etc., etc.

This is the period of quick and easy accumulation of knowledge, based first upon direct experience with reality and then upon indirect experience through reading, motion pictures, radio, television. If a person is destined to acquire a broad and detailed general knowledge, he almost surely has gone a long way in this direction by the end of middle childhood.

Developing Conscience, Morality, and a Scale of Values

The beginnings of moral conscience are formed in early childhood, but an important further development occurs in middle childhood. The young child's conscience is generally a rigid set of commands against wrongdoing. "Do not steal, do not tell lies, do not hurt smaller children, do not show your genitals, do not use bad language, etc." Two major developments follow this stage.

For one thing, the child develops a *scale of values*. He learns to make a rank order of things which are good or bad. Some things are better than others; some things are worse than others. The child learns to save money rather than spend it on the first desirable thing that he sees. He learns to

hold himself to study when he is tempted to go out and play. He begins to learn what to do in a conflict of values, when he must decide whether to tell a "white lie" in order to avoid hurting someone's feelings. He learns that this kind of white lie is better than one which he might tell in order to escape punishment for his own wrongdoing.

The second development is the learning of a democratic morality by agreement of the people concerned. This takes place first in games, where children learn to adapt the rules of games to the needs of the players. Morality consists of respect for rules, and children learn a democratic morality by making their own rules in games, and then by learning to respect these rules as well as to modify them by common consent.

This kind of morality by cooperation is essential in a modern democratic society, which works through making and changing laws to meet the needs of the people.

Achieving Personal Independence

By the end of middle childhood the child is expected to have a considerable degree of mental and physical independence.

His mental independence is shown by his ability to find knowledge for himself, either by observing the world, by experimenting, or by searching for knowledge independently in a library. He generally knows more than many adults about certain topics of special interest to him. Boys are likely to know more than their fathers about space missiles and the latest automobile models, as well as about sporting events. Girls are likely to know more than their mothers about movies.

Physical independence consists, at this age, of space-freedom. Boys and girls are able to stay away from home for longer and longer periods of time, and eventually to go away overnight, to visit friends or relatives or to a summer camp.

The Basic Attitude of Industry

The child who commences this period with a substantial basic sense of trust, with autonomy, and with initiative, will develop these attitudes further, through achievement of the developmental tasks of middle childhood.

In addition, he commences at this age to form a new basic attitude—that of *industry*. This is an attitude of responsibility for work, and a tendency to stick to a job until it is finished. It includes an interest and pride in using tools to make and do things.

No one would expect a child of 7 or 8 to sit down to a lesson or some other task and work at it for an hour in the face of distractions by playmates, by other more interesting things to do, etc. But by the age of 11 or 12 a boy or girl can be expected to work steadily at a job in spite of distractions. If he has school homework to do, he will do it rather than watch television. If he has agreed to mow the lawn or to wash the dishes, he will do this in spite of temptations to run off and play.

Once this basic attitude has been formed, it will be a source of strength

through the remainder of life. If it has not been formed by the end of the middle childhood, the person is likely to suffer through lack of it in all of his later life.

ADOLESCENCE: AGE 12-18

Adolescence in our society is often thought to be the most difficult stage of life. It is a period of pervasive physiological change, as well as profound social and personal change. One reason for its difficulty is that the biological and social aspects are often out of step. The youth becomes a biologically mature woman or man by the age of 15 or 17, while he may remain an adolescent in the social sense for another five or ten years. Since a person is not an adult in the social sense until he goes to work and sets up a home of his own or otherwise takes responsibility for his own support, a good many young people remain adolescent socially until they finish their education as late as the mid-twenties.

Nevertheless, most boys and girls do a quite satisfactory job of mastering the developmental tasks of adolescence, even when some of these tasks are delayed far beyond the natural biological age.

Accepting One's Body

Sometime around the age of 14 to 16, earlier for girls than for boys, the outlines of the adult body take shape. What is called the puberal growth cycle has been accomplished by the body, which has gone through a complex pattern of glandular development and reached adult biological levels of function. Girls go through this cycle about a year and a half ahead of boys. The cycle includes a period of rapid growth in height and weight, broadening of the shoulders for boys and the hips for girls, development of hair in the armpits and around the genital organs for both sexes, development of hair on the face and other parts of the body for males, change of voice, and growth in size and development of the external and internal genital organs. For girls, the development of the breasts and the beginning of menstruation, which comes on the average at 13 years, mark the achievement of womanhood.

There is a wide variability in the timing of the puberal growth cycle. Some girls start as early as age 10 while others do not start until age 15. Boys may start as early as age 12 or as late as age 17.

The individual's developmental task is to accept the physique with which nature has endowed him, to make the best of it, to become proud or at least tolerant of it. This task is complicated by the fact that a person may be early, average, or late in maturing.

Since our society pays a great deal of attention to physique, and judges men and women, boys and girls, by their physique and their physical appearance, this task is an extremely important one. Medical men and school counselors frequently get requests for advice and reassurance from boys and girls who are late in maturing. "Am I normal?" is the question which dominates the thinking of many, though they may not be able to put it into words.

Some young people show their failure at this task by extreme attempts to compensate. For instance, a boy who is small for his age of 16 and slow in maturing, may try to make up for this by getting an old automobile, painting it red, equipping it with multiple horns and a "souped-up" engine, and thus seek for assurance of being a tough "he-man," which he does not get from the development of his body.

Another form of failure at this task is to remain a child while one's age-mates become adults. For instance, a girl who has not matured yet at age 16, and remains a thin, flat-chested youngster, may retain her little-girl interests in reading, may refuse to go to parties and to take part in the conversations of girls her own age, and may shrug off her well-meaning mother's attempts to assure her that she will eventually develop into a woman.

Most youngsters achieve this task easily enough, especially boys who mature early or at least at the average age, and girls who are average in their timing. However, those who have difficulty with this task are likely to be a problem for their parents, because their behavior is so "irrational" in the eyes of others and defies rational discussion. Parents themselves may be embarrassed to talk with adolescent children about their physiological development, and adolescents generally hesitate to ask their parents for advice. The best solution probably lies in bringing the boy or girl into touch with a physician, a physical education teacher, or a school counselor, who is experienced in discussing these matters with teen-agers.

Developing a Masculine or Feminine Social Role

The young boy or girl has already learned the boy's or the girl's role in our society, and the adolescent has to learn the man's or the woman's role.

For boys this is a relatively easy task, since our society offers its principal places to men. Only rarely does a boy experience difficulty in learning masculine ways of behaving.

For girls the task is more complex, since there is a wider range of permissible women's roles. Most girls find it easy to accept the role of wife and mother, with dependence on a man for support. But a number of girls want a career, either with or without marriage. They admire their fathers and their older brothers and want the freedom and power and independence of the male. For them the achievement of a woman's role which includes a career is a fairly complex problem.

The problem of combining a career with marriage for a girl is becoming less complex, if the growing frequency of wives working is any indication. The wife usually breaks her working career for ten or fifteen years to have children and to get them into school, but then she often finds it quite easy and quite pleasant to go back to work.

Achieving New and More Mature Relations with Age-Mates of Both Sexes. Learning to Date and Getting Ready for Marriage

The goal of this task is to learn to look upon girls as women and boys as men; to become an adult among adults; to learn to work with others for a common purpose, disregarding personal feelings.

Dealing first with the aspect of the task which does not involve sexual differences, the adolescent boy or girl is expected to become a good "citizen" in school and club life. He should learn to work willingly under a leader who is chosen by the group, no matter whether he likes the leader personally. He should learn to work with other boys and girls on a team or a committee or a class project, no matter whether they are his personal friends. He should learn to take part reasonably and responsibly in discussions of matters on which his opinions may differ from those of others in the group, and to abide by group decisions unless they involve actions which he cannot conscientiously take.

The other aspect of the task is that of getting along with age-mates of the opposite sex—learning to date, to engage in courtship, and to get ready for marriage. This task is most easily begun at the age of 13 or 15, earlier for girls than for boys. At this time it is relatively easy to achieve the task because most of the age-group are involved in it, learning by trial and error.

But a good many boys and girls postpone this task, particularly those who are expecting to go to college and to work for a lengthy period in preparation for a career. They often have considerable trouble with it, because they have waited beyond the "teachable moment" when the learning was easiest. For instance, a studious young man of 22, who has devoted himself in high school and college to getting ready for a career in science, may not start to ask girls for dates until he is in graduate school. He may make some ridiculous mistakes which no one would notice in a 15-year-old, and he may feel uncomfortable at his own clumsiness in learning what everyone else takes for granted in dating and courtship.

This task of dating and courting has moral aspects which bother some boys and girls. To help adolescent youth with the moral problem of boy-girl relations the churches, youth-serving organizations such as YMCA, YWCA, and settlement houses, and some schools offer advice and discussion groups. These organizations in effect help the young person to clarify the social expectations which define achievement of the task and to understand these in relation to his own biological make-up.

Choosing and Preparing for an Occupation

This task is one which most boys and many girls in our society take very seriously. We expect boys and girls to make their own choices, with some advice from parents or counselors. Relatively few are pushed into the father's occupation, and our society does not have rules of occupational succession, such as the rule that the first son should be a farmer, the second a priest, the third a soldier, and so on.

Choosing is often a more difficult part of this task than the actual preparation. There is so much at stake in the choice of an occupation, particularly for a boy, and he is left so nearly alone to make the decision.

There is a good deal of fumbling about, especially by middle-class youth, in their search for a vocation.

The task of preparing for a vocation is such a lengthy one for those who

enter the professions, that it gets in the way of and postpones some of the tasks of early adulthood, such as getting started in a career, and starting a home and family.

Becoming Emotionally Independent of Parents and Other Adults

We saw that the basic attitudes of autonomy and initiative, if learned in the earliest stage, lead to satisfactory accomplishment of the middle childhood task of physical independence. These lead to the adolescent task of emotional independence.

The goal of this task is to become free from childish dependence on parents; to have affection for parents without dependence on them; to have respect for other adults without dependence on them.

In our society, adolescents and their parents are apt to be worried and confused over this task. Boys and girls want to grow up and be independent, yet the adult world is strange and complicated, causing them to wish for the continued security of parental protection. On the other hand, parents want their children to grow up, yet they are afraid of what the world may do to innocent and inexperienced youth. In this confused situation adolescent boys and girls often rebel against their parents in some things and then become dependent children just when parents want them to be responsible adults. Adolescents are likely to try out their drive for independence in such areas as choices of clothing, of friends, of amusements which are more or less questionable from the adult point of view; and to decline to be independent in matters of money, care of one's room, and schoolwork.

This task is complicated for youth who go to college by the fact that most of them remain financially dependent upon their parents, and it is difficult to become emotionally independent while one is financially dependent.

Yet failure in this task is one of the most tragic things that can happen to a young man or woman. He remains dependent on other people, unable to make up his own mind on such matters as choice of a job, getting married, and where to live.

Acquiring a Set of Values and a Philosophy of Life

The crowning accomplishment of adolescence is the achieving of a mature set of values and a set of ethical controls that characterize a good man and a good citizen.

The crude value system of middle childhood is replaced by a complex system of moral principles and value judgments that effectively guide a person through the jungle of modern society. He becomes able to apply moral principles to the new and complex situations which a changing society produces for him as a citizen, worker, and parent.

This task has no biological basis, and in a society as indifferent to moral excellence as ours is, the social expectations are not very high. Thus this task is largely a self-defined and self-imposed task, and therefore the performance of people varies from very poor to excellent. The fact that our society tolerates such a shoddy performance of this task has caused a good deal of concern

both to educators and to religious leaders. In our schools and colleges there is a growing amount of discussion concerning the place of the learning and improving of values through education.

There is evidence that young people of 16 to 20 are genuinely concerned with the matter of forming their own philosophy of life. They take avid part in discussion groups on this subject, and a skilled teacher in school, college, or church can lead them toward a real accomplishment.

For this task the church offers a great deal of assistance. Those boys and girls who have grown up in a church have a set of values and a philosophy of life held up as a model for their own personal guidance. Church youth groups give them opportunity to discuss and clarify their personal philosophies with other people like themselves. Some churches take this occasion to indoctrinate youth with their systems of morality and theology with the help of authoritative teachers, while others make this experience one of exploration and discovery of self under the guidance of teachers who use a kind of Socratic method.

The Basic Problem of Identity

During adolescence the outcome of good achievement of developmental tasks is a firm and clear sense of identity. From this time on the individual knows pretty well what kind of a person he wants to be, what kind of career he wants to have, and what kind of place he wants in the community. This is his identity. Having achieved an appropriate masculine or feminine sex role, accepted his physique, worked out adult relations with his age-mates, decided upon the type of occupation he will prepare for, achieved emotional independence of his parents, and worked out a philosophy of life, he has attained an identity, or enough sense of who he is and what he wants to be, to be able to face the world with courage and self-assurance.

The failure of the youth to achieve a firm sense of personal identity may lead on the one hand to confusion, apathy, and anxiety which prohibit the full development and use of his personal resources, and on the other hand to rebellion against society which takes the form either of delinquency or of intellectual rebellion. Psychiatrists say that the characteristic problem of youth who come to them for help today is different from what it was a generation ago. Then it was guilt and anxiety over hostile or sexual impulses. Now it is role-diffusion, or inability to fix upon the kind of person one wants to be in this complex and confusing society.

The average adolescent with ordinary abilities achieves his sense of identity fairly well, even in the face of the complexity of his world. But the extraordinary person, the one who might do well either as an engineer or a musician, or as a mother and a career woman in business, may have unusual difficulty in making the decisions and the choices that identity requires.

SOURCES OF HELP WITH DEVELOPMENTAL TASKS

At every stage of life there are sources of help for the individual in achieving his developmental tasks. Naturally, the assistance is given more fully and

more systematically to children than to grown-ups, for the latter are expected to be more nearly in command of their life situations.

The home is the principal and indeed the only institution which helps the young child directly. To some extent the church figures also, through its instruction or advice to parents on the upbringing of their children. The community through its health services also offers advice to parents.

Most people seem to know intuitively where to turn for help with their developmental tasks. By the time a boy or girl reaches middle childhood, he knows that the school is there as his principal source of assistance besides the home, and that the church also can help in some ways.

Indeed, nobody can achieve his developmental tasks unaided. Everyone uses several social institutions which have evolved to supplement the family in making life more satisfactory and in making the individual a more successful person.

The young adult gets perhaps the least help from the community institutions, because he is finished with school, and has not yet learned to use skillfully the services available to adults in the fields of health, employment, and social relations.

EARLY ADULTHOOD: AGE 19-30

The next stage in the life cycle beyond adolescence is easy to describe in terms of the tasks to be achieved, but difficult to locate in age terms, because adolescence has such a vague end-point. Early adulthood commences when a person is ready to start his occupational career and to start his own family.

This period usually contains marriage, the first pregnancy, the first serious full-time job, the first illnesses of children, the first experience of furnishing or buying or building a house. If ever people are motivated to learn and to learn quickly, it is at times such as those. *This period is full of teachable moments.*

Getting Married

Until it is accomplished, the task of finding a marriage partner is at once the most interesting and the most disturbing of the tasks of early adulthood. The rules of courtship vary from one social class to another, as does the degree of involvement of parents and other relatives.

After the wedding there comes a period of learning how to fit two lives together. In the main this consists of learning to express and control one's feelings—anger, joy, disgust, love—so that one can live intimately and happily with one's spouse.

This task may be especially difficult for the young woman who wants the roles of wife and career woman together.

Starting a Family

The task of bearing and rearing the first child is a biological one for the mother, and a psychological one for both father and mother. Hence it is easy to understand why courses are offered by hospitals and family agencies for prospective fathers, as well as for prospective mothers.

Success in this task requires certain kinds of knowledge for the wife and husband, and attitudes favorable to having children. It also requires a real joy in caring for children, which young mothers generally discover in themselves, and which makes this period in their life the most enjoyable of all, as they look back upon it in later years.

Managing a Home

The task of managing a home sometimes finds the young wife feeling more nearly helpless and confused than the task of rearing her first child. There are the problems of finding a home, buying furniture on the lowest income the family will ever have, learning to plan and to cook meals.

The husband has his share of this task in financing the home, helping to choose furniture, and working out with his wife the routines for making the home run smoothly.

Getting Started in an Occupation

This task takes an enormous amount of the young man's or woman's time and energy. Often it interferes with the task of finding a mate and starting a family.

This task is likely to be most difficult for the young middle class man or woman in a business or profession where promotion depends on his own individual effort. He may have to pursue further education, in a vocational course or in a graduate school, in order to qualify himself for promotion.

Finding a Congenial Friendship Group

This task is the one most likely to be passed over, among the developmental tasks of early adulthood. So much energy and time are involved in marriage, starting a family, and getting ahead in an occupation that there may be little time or inclination left for making friends.

Yet a young couple must often move away from their childhood friends and set themselves up in a new community. Here, they are breaking new ground for themselves. The young man loses interest in his former bachelor activities, and his wife drops out of some of her feminine associations.

Together they must form a new leisure-time pattern and find others to share it with. They look for new friends, people about their own age, with whom they can develop a social life that may last for forty years.

Considerations of social status enter into the accomplishment of this task. The friends they make will be important in the husband's career, and in the wife's social prestige. Invitations may come to join the country club, and to join a young couples' club in a church, and to participate in an informal group of eight or ten couples who play cards and have refreshments once a week in rotation at their respective homes. Here they may have to choose, with one eye on the cost and the other on the social advantages.

This task is important, then, both for the happiness of the young adult and for success in his career.

The Basic Attitude of Intimacy

At this age the basic attitude to be formed is that of intimacy—of a deep emotional sharing with one's spouse and one's children. The earlier forms of intimacy, whether that of "best friends" in adolescence, or that of engagement to be married, or that of close parent-child relations, all lack the complete sharing of experience that forms the ground for this basic attitude. Two people cannot live together as man and wife without learning to be intimate with one another in many ways. The sharing of sexual relations is the essence of intimacy, and makes other forms of intimacy tolerable or attractive.

Married people who fail to develop the attitude of intimacy have difficulty with their marriage, and set their children a poor example for their own future marital happiness.

MIDDLE ADULthood: AGE 30-55

Most people feel that middle adulthood is the prime of life. Business and professional men generally set the time of their prime at 40 to 55, while those who work with their hands set their prime in the 30's. Women are likely to think of the early 30's or the early 50's as the prime of life. Those who favor the early 30's do so because this is the time when their children are in the home and they themselves are most effective in the role of wife and mother. Those who favor the early 50's choose this age because they are free from the close confinement of home and children and have time and energy to devote to social and civic life and to their friends.

If any age is a plateau period, this is it. There are no sharp crises, no tasks with sharp, clear timing. The developmental tasks are less dramatic than in other stages.

Setting Adolescent Children Free

Middle age is the time to set adolescent children free from the bonds that tie them to their parents, and to launch them on a life of their own. This is a *reciprocal* task to the adolescent's task of becoming emotionally independent of parents and other adults. The adolescent achieves his task best when the middle-aged parent helps the process.

When middle-aged parents have difficulty with their aspect of this task, it is often because they project the problems of their own adolescence into the lives of their children. A mother who had difficulty when she was a teenager may become over-solicitous about her daughter and thus refuse to allow her daughter the freedom she needs to become a woman in her own right.

Parents at this age are often overimpressed by the complexity of the world in which their children move. They feel that they must assist with every problem the young person faces.

Perhaps the most useful thing the father or mother can do is to set a good example of effective adult living—to be a good husband or wife, a good home-maker, a good worker, and a good citizen. If they do this quietly, without much talk about it, the adolescent son or daughter is likely to follow their

example through the unconscious habit of imitating them which he formed as a young child.

This is a time when the investment in a successful program of child-rearing during the earlier years pays dividends. The child's conscience was formed in the earlier years, and will now work on the side of the parents when there is a conflict of values to be solved. The child's social personality has been formed, and will work in his favor without any need of further effort by the parents. The basic attitudes of trust, autonomy, initiative, and industry are enough to launch the adolescent successfully on his own adult career.

Becoming a Club or Association Member

Membership in clubs or associations is by no means universal even in America, which has been called a nation of "joiners." It is widespread only in the middle-class and upper-class sections of society. Working-class people generally belong to labor unions, but relatively few of them give much time or energy to union activity. A minority of working-class people belong to fraternal organizations. Relatively few are active in veterans or patriotic organizations.

Still, club and association activity is an important political and social fact in America, and a person can hardly be an effective citizen or lead an active social life without taking part in organizations.

In young adulthood, married women are generally preoccupied with work and family roles, and have little time left over for association roles. They usually belong to a church, and often get started in associations through church clubs or societies.

However, it takes time to learn how to participate in adult associations. One must learn what is expected of members in lodges, church organizations, social clubs, labor unions, and professional societies.

Middle age is the time of most active club and association membership, and the social expectations concerning this kind of activity are strong enough to justify its being called a developmental task for middle-class people.

Achieving Adult Social and Civic Responsibility

The role of citizen has a different place in the feelings of people than the role of parent, spouse, worker, and home-maker. It has a lesser impact on the person. It is felt less keenly as a developmental task.

Still, middle-class people and some working-class people do feel this as a developmental task, fortunately for the welfare of society, and they work hard to give a good civic performance.

Many men find real pleasure in keeping "up to date" in economic and political events, and are glad to spend the necessary time studying, and working with people. For women whose children are grown up and leaving the home, there is a gain in developing new social and civic interests. Such women become active in civic organizations, furnish most of the rank and file of civic reform movements, and give time to serious study of foreign affairs and domestic economic issues.

Some churches regard it as a part of their mission to help their members to apply religious principles of peace and charity in the community and the world. Probably the citizens who are most effective and most active in this role have a religious motivation behind their behavior, though their religion may not always be theistic.

Adjusting to Biological Changes

After the adolescent task of accepting one's body, there is no particular biological crisis for most people until middle age. Then comes the task of accepting the body once more, this time a difficult task for everybody, because everyone's body deteriorates during middle age.

The biological changes are dramatized for women by the menopause, but they are present for both sexes in other forms. Men and women acquire the "middle-aged spread" and put on fat around the waist. The eye lens loses elasticity and people have to wear glasses or bifocals. Unusual exertion, such as running, playing tennis, or mountain climbing, may result in sprained ankles, torn ligaments, and physical exhaustion. Men who have been physically active and even athletic suddenly find that their adolescent sons can outdo them. A few men suffer a premonitory heart attack.

For the man, adjustment to the physical changes of middle age is usually smooth enough. There may be a few flurries, such as an argument with the doctor about giving up tennis, or a period of denying the manifest need of reading glasses, but generally the man slows down on the more strenuous forms of physical activity, conserves his energy if he is a manual worker, and counts on experience and skill to enable him to hold his own with younger, more active men. Sexual activity and interest decrease slowly in men, but continue far into the period of old age. Some men seek new sexual stimulation with younger women at this period of life.

For the woman, there may be a premenopausal "thrust of activity" in which she seems to try to make up for lost time. This may take the form of having another child "before it is too late" or of picking up old social and civic interests which had been abandoned with the coming of children. With some women there is a period of increased sexual excitability just before the menopause, which has gained for this period a name, "The Dangerous Age." The woman may resume earlier habits of grooming and dressing "to appear young again" and she may make friends with people of dubious reputation, who pay court to her.

The menopause itself may be accompanied by a period of psychological depression. Almost every woman goes through a shorter or longer depression while her body is readjusting to a changed endocrine balance.

Some time between 50 and 55 the individual should develop a program of health maintenance. He should secure a general medical examination at least once in two years, and more frequently for women; he should plan his diet to keep his weight down and his physical energy up; he should work out a program of mild, regular physical exercise.

The Basic Attitude of Generativity

The central attitude for a happy and successful life at this stage may be given the name of generativity. It is seen in the farmer who has respect for the earth that he tills. He wants to make it and keep it productive, and he puts into it so much care that he increases its fertility.

This is the attitude of the father or mother transferred and generalized from the family to the society. One not only wants to see one's children grow and prosper; one also wants to see the whole society grow and prosper. Consequently one spends time as a citizen and a worker and an association member to make human society better. Failure to develop this attitude results in the tragedy of stagnation in a period when life can be expansive and productive.

LATER MATURITY: AGE 55+

The sixth age, *later maturity*, commences with what we may call the *crisis of maturity*. This may come sharply or gradually, and it may come as late as age 60 or as early as age 50. A person becomes aware that he is growing older. This awareness is marked by the biological changes of middle age and by two other things:

a. *Recognition that one has reached the top of one's career.* After years of promotion, increase in salary, and growth in status and power, a person realizes that he has reached a plateau. There will be no further rise, and eventually he must go downhill.

b. *Realization that the future is not indefinite.* There comes a time in every person's life when he realizes that he does not have an unlimited amount of time ahead of him. Before this time he can make plans and take on responsibilities without asking himself how many of those things he can accomplish in his lifetime. After this point, he realizes that there will not be time enough in his life to do all the things he would like to do. Therefore he must assign some priorities, decline some opportunities, and parcel out his remaining years so as to get the more important things done.

During this period—20 years or more for most people—there will be a number of new experiences and new situations to meet, such as: decreased income, moving to a smaller dwelling, loss of spouse by death, a crippling illness or accident, and loss of one's work. Some people meet these situations so well that they can sincerely say that the years of later maturity are the best years of their life.

Adjustment to Retirement

The task of accepting retirement is especially difficult if retirement comes while a person is in good health and enjoys his work. The job is the axis of life for most men and for many women. If the occupation goes, the individual feels that he does not count, that he is not a worthy member of society. About half of our people retire by their own wish or because of compulsory retirement rules before the age of 68, and the number who retire at 65 or so is increasing.

The main difficulty about retirement is not the loss of income, but the loss of other values in work, such as the feeling of self-respect that comes from one's work, the pleasure of associating with friends on the job, the joy of the new and challenging experiences that is found in work, the satisfaction of giving service to others, and the work routine which organizes the day and makes the time pass.

Successful achievement of the developmental task of retiring gracefully is generally accomplished by a combination of two operations. One is to reduce the amount of time, energy and emotion invested in the job, and the other is to find substitute activities and substitute rewards for those which work has brought.

Some people solve the problem of retirement by finding some other kind of work—often a part-time job which they can hold for several years while they gradually get used to the idea of full retirement. Others accept retirement gracefully and even gratefully because they have many other things to do. They may actually enjoy the let-up from the physical demands of regular working hours. They may take the opportunity to do things they have long wanted to do—travel, visit friends, read or play games, indulge in a hobby, move to a pleasanter climate, take a more active part in civic or church affairs.

Accepting a Reduced Status and Income

It seems inevitable in our society that people will have to lose social prestige as well as take a reduced income as they grow older. Since the status and prestige of a person depend so much on his *function* as a worker, parent, citizen, and association member, when he begins to reduce his activity in these roles he is bound to suffer reduced status and prestige. Along with this goes a reduction of income for most people, which they are likely to feel as a reduction in status.

Those who achieve this developmental task successfully manage to combine a graceful acceptance of loss of status with a maintenance of certain kinds of prestige within the family and within their own age group and their own circle of friends. A club or association of older people may be a powerful help to those of its members who feel that they are being "put on the shelf" in the other organizations to which they belong.

Achieving a New Relation to One's Husband or Wife

Sometimes the husband-wife relation is allowed to take a secondary place in the lives of a man and woman in middle age, while the man invests most of his energy in his career and the woman puts her investment into her home and children. Then as the man passes the peak of his career and the woman's children grow up and leave the home the two may come back together in a much closer and more satisfying relationship.

Often the man needs encouragement and appreciation from his wife, as he suffers the insults of growing older. She, in turn, may need the assurance of her own continuing attractiveness as a woman that comes from her husband's attentiveness and affection.

Finally the time must come when death separates the couple. Women lose their husbands more often than men lose their wives, because women are longer-lived and marry younger than men. There are about twice as many widows as widowers in the average community. By the later 60's as many women are widows as are living with their husbands.

Finding a Satisfactory Dwelling

Home is likely to become more important to a person as he grows older, because he will spend more time and will seek more of his satisfaction at home.

Most people will live as couples in their own homes until very close to the end of their lives; they may continue living in the home in which they have raised their family; they may find or build a smaller home in the same town; they may move to a more pleasant climate. Wherever they live, people of this age seek the following things: quiet, privacy, independence, nearness to relatives and friends, residence among their own cultural and social group, and closeness to transportation lines and libraries, shops, churches, etc.

The question of whether to move to a more comfortable climate, such as Florida, the Southwest, or the West Coast, cannot be answered in the same way for everybody. Those who are interested in the possibility would do well to experiment with a new place by renting a home for a season before they make the final decision.

Learning to Disengage Oneself from the Demands and Activities of Middle Age

A 70-year-old woman was explaining why it was a good thing to be her age. She could look back on a full life as a teacher, wife, and mother. She was still a very active person, with a full daily round of social engagements while she kept house for herself and her husband. This is what she said was the best thing about being 70. "The freedom from petty conventions and from the demands of children. A sense of relief from petty fears about job, finances, social position, new clothes; freedom to accept or decline invitations and appointments without a personal responsibility. I am free to say what I want without strain on my husband's business or hurting my children."

This woman expressed some of the complexity of the task of disengagement. The task is to get free from the tangle of obligations and restrictions of middle age, and at the same time to maintain an active interest and participation in life. It is a kind of "carefree" behavior that would not be regarded as appropriate in a middle-aged person.

There are two common forms of failure with this task. One way of failing is to attempt to hang on to the responsibilities of middle age—to refuse to allow one's children to become free, to refuse to reduce one's job responsibilities, to refuse to accept a lesser position after one has been a leader in one's profession, club, church, or community.

The other way of failing is to drop out of things, to cut the ties which bind one to social life, to become a kind of hermit.

The successful person follows a program of selective disengagement, con-

tinuing the interests and activities that are most rewarding in later maturity, reducing the ones that are most demanding, and developing new interests that are especially appropriate. This person may reduce his physical activity and occupy the "rocking chair" more of the time, but he continues to be interested in what is going on around him.

The Basic Attitude of Integrity

The appropriate attitude for the stage of maturity is *integrity*. *This is belief in oneself and one's particular life cycle as something that had to be and not wishing it had been different.* It is a kind of fortitude which withstands the hard things of life and takes the good things zestfully.

Integrity is a belief in the value or goodness of one's own contribution to human history, without wishing to begin over and do it differently.

The person who has integrity is not afraid of death. His one and only life has been a worthy and a meaningful one to him, and he will accept death at the appropriate time as the fitting end of a good life.

The reader who is familiar with Shakespeare's Seven Ages will note that we have not included his final stage, that of *Senility*, in our presentation. There is no need for this. Most people live in the stage of later maturity until the end of their days, and they live quite fully and with great pleasure. We close, then, with later maturity as the appropriate and desirable final stage of life.

Shakespeare's "Seven Ages of Man" from *As You Like It*

All the world's a stage,
And all the men and women merely
players.

They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages. At first the
infant,

Mewling and puking in the nurse's arms.
And then the whining school-boy, with his
satchel

And shining morning face, creeping like
snail

Unwillingly to school. And then the lover,
Sighing like furnace, with a woeful ballad
Made to his mistress' eyebrow. Then a
soldier,

Full of strange oaths, and bearded like the
pard,

Jealous in honour, sudden and quick in
quarrel,

Seeking the bubble reputation

Even in the cannon's mouth. And then
the justice,

In fair round belly with good capon lined,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances:
And so he plays his part. The sixth age
shifts

Into the lean and slipper'd pantaloon,
With spectacles on nose and pouch on side,
His youthful hose, well saved, a world too
wide

For his shrunk shank; and his big manly
voice,

Turning again toward childish treble, pipes
And whistles in his sound. Last scene of
all,

That ends this strange eventful history,
Is second childishness, and mere oblivion,
Sans teeth, sans eyes, sans taste, sans
everything.

Act II, Scene 7

RELEARNING SCIENCE

AND

CUES TO CURRENT CONCEPTS

By WILLY LEY

WHAT IS SCIENCE?

When you read through the following pages, in the hope of refreshing your memory about scientific facts that you once knew but have forgotten because they played no direct role in your daily life, you are likely to come across many items that will make you think: "I *never* knew this before." If this is your reaction, it is not due to a faulty memory but the simple truth.

It is the outgrowth of the fact that scientists themselves are always "re-learning science." That they do so is the very nature of science. Every once in a while a scientist is requested by a nonscientist to make a statement as to what science really is. Such a question sounds simple on the face of it; after all, one would expect a television technician to be able to explain how television works. Well, the technician probably can explain it—but this does not mean that the explanation will be, or even can be, short.

The simplest answer is: "An organized body of information and theories connecting the pieces of information." This answer is correct, but it is not the whole story. The same definition might be used for jurisprudence, or theology, or music.

Let us be a little more specific, therefore, and say first that the knowledge in question deals, for the "natural sciences," with facts of nature. Such a fact might be that animals with lungs cannot breathe water and that animals with gills cannot breathe air. Or it might be the knowledge that hydrogen can be burned with oxygen and that water is the result. Or, even more simply, it might be that a cubic inch of gold weighs 19.3 times as much as a cubic inch of water. With this last example we are approaching the hard core of scientific knowledge—the point where the natural sciences are inherently superior to the social sciences.

The German philosopher Immanuel Kant once said something to the effect that the most definite scientific facts are those which can be expressed in figures. Kant died in 1804, but what he said is still true. There can be absolutely no quibbling with the fact that the specific gravity of gold is 19.3. If you wish to doubt it, go ahead and measure it yourself; you'll find out that gold weighs 19.3 times as much as water. (If it doesn't, and you haven't made a mistake, you did not test gold but something else.)

In the natural sciences, then, we have an unassailable core of facts which can be expressed in figures. Around this core of figure-facts we have an "inner

winding" of well-tested relationships for which nobody ever discovered an exception. Around that there is an "outer winding" of miscellanea—isolated facts which must fit somewhere but we don't know where, theories that work but have exceptions, and sometimes clear indications that some fact or factor is missing or, rather, unknown. It is mostly with respect to this "outer winding" that another definition of science comes to the fore—namely, that science is a self-correcting process.

The layman likes to hear the term "science has proved . . ." because of the assurance which is carried by it. As for the statement that follows after these three words, it may be so or may not be so. Some laymen, on the other hand, like to mention that Dr. So-and-So made a mistake, even though he was a scientist. The answer is, "Why not?" It can be safely assumed that Dr. So-and-So is, or was, human. Scientists tend to be more patient with their work than the average person but that does not make them mistake-proof. One might even say: fortunately. Often the mistakes of one man make others realize things they would never have thought of if somebody had not firmly pointed in the wrong direction, making the others wonder what other directions there might be. It is all part of the self-correcting process which is science and which tries to learn, in time, as many of the facts of nature as can be learned.

It is for this reason that what follows is likely to contain many items causing the thought that you never knew this before. In some cases it may be something that actually was known but which you, for some external reason, were not taught. But in most cases the newness of the fact or idea will be genuine, a result of the permanently self-correcting process of learning which is called science.

While it is customary, for practical purposes, to divide "science" into a number of disciplines, such as chemistry, physics, and so forth, it should be emphasized that this distinction is artificial and is useful only for what might be called sorting purposes. Cross-influences between the various disciplines do not only exist, they are common. A discovery in chemistry might influence physics, astronomy, and half a dozen other disciplines. In fact just this has happened repeatedly; an earlier case was the discovery of what is now called spectrum analysis; a more recent one was radioactivity. Because of these interconnections and cross-influences it is relatively unimportant with which science a survey begins, though it is customary to begin with astronomy. But since it is practical to progress from the known to the unknown, a more logical case can be made for beginning with our earth. After all, this is the place where we live.

GEOLOGY

Translated literally, the word "geology" means "knowledge of the earth." When this science began—at about the time of the American revolution—the pioneers of the then new science tried to do just what the word says: they tried to find out how our earth is built. But as they worked and reasoned,

something that had long been known, namely fossils, acquired more and more importance. Geologists soon learned that some fossils occurred only in certain layers and this discovery turned some of the method upside down.

Instead of trying to identify a certain layer in the earth's crust and collecting the fossils as a bonus, geologists began to look for these "leading fossils" (as they termed them) to identify the layer. And geology soon turned into the "knowledge of the history of the earth."

Well, even the earth had to have had a beginning at one time and there has hardly ever been any disagreement about the fundamental mechanism of the formation of a planet. Everybody always felt that a planet, our earth included, came into existence by the condensation of dust and gas. A scientific wrangle which lasted for a century and which has filled many books dealt with the details of this condensation.

Where did the matter which later condensed come from? Was it something that had been in space when the sun formed? Or had the sun formed first and then thrown off the matter which formed the planets? If so, what had caused the sun to throw out matter? And if you agreed on a cause (for example the gravitational pull of a passing star) there was still the question whether such very hot sun matter could condense into a planet or whether it, because of its heat, would simply dissipate itself in space.

We now know that this is just what would happen.

Formation of a Planet

Consequently, then, the material which formed the planets never was a part of our sun, but was left over so to speak when the sun was formed. Just the same our planet must have grown hot during its formation. When pieces of matter run into each other they produce heat. The heat produced during the formation of our earth—or of any of the other planets—never grew intense enough to start an atomic reaction at the core. But it did grow intense enough to melt everything. Thus at one time our earth was a large ball of molten rock.

The proof of this assertion is the very distinct layering of our planet. In the center there is a core consisting essentially of iron and nickel. A geological theory invented more than forty years ago coined special names for these layers, which are still useful. The core is nickel and iron (chemical symbol *Fe* from Latin *ferrum*), hence the core material was labeled *Nife*. Around this "yolk" of *Nife* we have a thick shell of rock in which the two elements silicon and magnesium are abundant, hence *Sima*. And on top of this "egg white," the *Sima*, we have another and comparatively thin layer where silicon and aluminum are prominent, hence *Sial*. One may add that this "egg" has parts of its *Sial* shell missing and that it is moist in places: the oceans.

Such layering would be impossible if the whole earth had not been molten at one time. Only in a molten planet could the heavy iron and nickel congregate at the center, with the lighter *Sima* rising to the top and the still lighter *Sial* floating on top of the *Sima*.

Gradually, of course, the white-hot planet earth lost its heat, radiating it

into space. It is now estimated that it took the earth about two billion years to cool off to the point where it acquired a solid crust. And after it had acquired a solid crust it also acquired an atmosphere. True, the original material which formed the earth must have contained many gases, but with a white-hot earth the molecules of these gases moved so fast that they were lost into space.

The new atmosphere, bubbling up from the hot rocks, cannot have contained any oxygen, because oxygen is a very active element and any oxygen that might have been there would have combined chemically with whatever there was within reach. The new atmosphere, at first, must have consisted mainly of the two heavy gases nitrogen and argon plus heavy gaseous compounds like carbon dioxide. The new atmosphere must also have been full of water vapor.

For thousands, for hundreds of thousands of years it must have rained steadily inside that atmosphere without a drop of water actually reaching the ground. The water vapor, carried into the upper atmosphere by vertical currents, cooled off enough to condense into water. The water droplets, being heavier than the surrounding air, began to fall, but farther down the atmosphere was so hot that the water droplets evaporated again, turning back into water vapor which was carried up into the upper layers, condensed again and went through the same cycle millions of times. The earth lost much of its heat that way. Seen from a distance it might well have looked like what the planet Venus looks like now, an unbroken and featureless cloud layer wrapping the whole planet in a white veil.

One day, at one point, the temperature of the ground dropped below the boiling point of water, probably on a high mountain range. It began to rain on these high mountains. Of course the rock was still hot and the rain evaporated again, but this very process of evaporating the raindrops cooled the rock some more. The area of actual rainfall became an ever-widening circle. As this circle became large enough a hole opened in the cloud layer above and the heat of the ground could radiate into space faster through that hole than it had while the cloud blanket was complete. Another such hole appeared elsewhere and soon it was raining over most of the earth. The water ran off the high ground and the mountains, forming rivulets, creeks, rivers. The rivers accumulated somewhere over low ground, the first large lakes came into existence, still boiling hot.

This was about two billion years ago, a date that can be established with reasonable certainty from radioactive materials like uranium and thorium.

Origin of Life

Then life originated, somewhere in shallow waters either near the shore or in a lagoon where minerals had been dissolved out of the rocks. We have a good idea of how life got started; in fact it has been possible to duplicate conditions in the laboratory. The atmosphere consisted essentially of argon and nitrogen but with a few additions like water vapor, carbon dioxide, carbon monoxide, ammonia, methane, and acetylene, the latter due to the reaction of natural carbides with sea water. If you prepare such a mixture and

shoot electric sparks through it a number of compounds are formed which a chemist would call "organic," including some of the so-called amino acids which come close to, but are not yet, protein.

The "spark" that started all this—presumably millions of times over—was natural lightning. The result was something which, if it happened now, would be instantly eaten up by microorganisms. But there were no organisms of any type or size then. But if a very primitive organism came into existence, it would find a supply of food. This theory of the origin of life has been labeled "the soup that ate itself." It's a pretty phrase, but not quite correct—it was one part of the soup which ate the rest.

This theory, incidentally, disposes of a question that used to be asked often in the past, namely "If living matter could originate from nonliving matter, why doesn't it happen now?" It probably does happen now, but any "proto-life" that gets started now never has a chance to go any farther—it will be eaten up by the existing life forms. Life can originate only if it is not already present.

All this is knowledge which was attained in recent years.

The early geologists were content to establish the relative age of the various rocks which they found and classified. The oldest type, found in Wales at first (but later elsewhere), was named Cambrian because Cambria was the Latin name for Wales. The early geologists knew only that it was the oldest period which they could establish; they had no idea how old it really was. We now date the beginning of the Cambrian Period as 550 million years ago.

The Era of Lifeless Continents

If the often-used science fiction device of the time machine really existed and if people from the present were transported back to the beginning of the Cambrian Period they would probably return in a state of profound depression. They would have seen something we find it almost impossible to imagine.

It is not too hard to picture the earth with a different distribution of land and water. Nor is it difficult to imagine that the oceans, compared to ours, were not salty. That the sunlight was weaker than now is also conceivable. But what is impossible to picture is continents the size of Asia without a single plant, without any life at all. Life had not yet climbed on land and what life there was in the waters was small in size (though not microscopic) and only a few life forms had developed hard shells. An internal skeleton was still to come. One could probably have walked for many miles even along the seashore without finding a single trace of life.

This Cambrian Period lasted for about 70 million years. It was followed by the Ordovician Period (lasting 85 million years), in which things were still much the same. Of course the number of life forms in the sea increased. During the following period, the Silurian (40 million years), the first fishes appeared, only to become extinct near the end of the period. The reason for the extinction of the first types is simple: another and more murderous type had evolved: the sharks.

During the next period, the Devonian, the plants succeeded in climbing the

TABLE OF GEOLOGICAL PERIODS

Geologists subdivide the whole history of the earth into six "eras," of which the last three are divided into "periods" and the latter into "subperiods." The first era is called the Azoic ("lifeless") Era, covering the first 2000 million years of the earth's history. The next two eras are named Archeozoic ("first life") Era and Proterozoic ("before life," name given prematurely but now established) Era. Each of these had a duration of about 650 million years.

ERA	Period and duration (in millions of years)		Sub-periods	Events
PALEOZOIC (<i>palaios</i> = old) began 550 mill. years ago	Cambrian	— 70	For these periods only “lower” (older) and “upper” (younger) are distinguished to give rough indication of age.	Primitive, invertebrate sea life, slowly increasing in number of species First fishes
	Ordovician	— 85		
	Silurian	— 40		
	Devonian	— 50		
	Carboniferous	— 85	Lower: Mississippian Upper: Pennsylvanian	First known land plants Maximum coal formation First reptiles
	Permian	— 25		
MESOZOIC (<i>mesos</i> = middle) began 195 mill. years ago	Triassic	— 35	Lower T. or Bunter Middle T. or Muschelkalk Upper T. or Keuper	Early saurians, earliest known flying fish
	Jurassic	— 35	Lower J. or Lias Middle J. or Dogger Upper J. or Malm	Age of the dinosaurs; earliest known bird
	Cretaceous	— 65	Lower Cretaceous Upper Cretaceous	Maximum development of the saurians
CENOZOIC (<i>kainos</i> = new) began 60 mill. years ago	Tertiary	— 59	Paleocene — 5	Evolution of the life-forms of the present
			Eocene — 20	
			Oligocene — 16	
			Miocene — 12	
			Pliocene — 6	
	Pleistocene	— 1	Popularly known as the Ice Age, ended 10,000 to 15,000 years ago	
	Holocene		The geological present	

land (an example of such really primeval forest has been found in New York State). The advance of the plants onto land wreaked a profound change in the atmosphere—free oxygen slowly accumulated, produced by the plants. While scientists are in general agreement that the free oxygen of our atmosphere—constituting 20% of it—has been produced by plants which take carbon dioxide (CO_2) apart, some free oxygen could have been there by the time the first land plants appeared.

Carbon dioxide (released by volcanoes) reacts to a small extent with water to form carbonic acid with the formula H_2CO_3 . The carbonic acid, in turn, will be acted upon by ultraviolet light (from the sun) or by lightning discharges which will change the H_2CO_3 into O_2 (free oxygen) and CH_2O (formaldehyde). But this would account for traces of free oxygen only; the plants did the main job.

And they certainly spread and multiplied in the process, for the period following the Devonian was the Carboniferous Period (the name lumps the two sub-periods Mississippian and Pennsylvanian) which lasted 85 million years and which produced most of the coal on which our industrial civilization is founded.

Of course animal life had followed the plants to the land. There existed ancient insects, some of exaggerated size—for example, early dragonflies with a wingspread of nearly 30 inches. (In a German coal mine a yard-long but very slender millipede from the same period has been discovered recently.) But there were also salamander-like amphibians four and five feet in length.

After the Carboniferous Period with its prodigious plant life came one which seems to have been rather arid, and even cold in some places: the Permian Period with a duration of 25 million years. But during this Permian Period the early reptiles made their appearance and with them the ancestors of the mammals. But the mammals did not win out at once; for the next 135 million years the pendulum swung in favor of the reptiles.

The Age of Reptiles

These 135 million years are popularly known as the Age of the Reptiles, or sometimes the Age of the Dinosaurs, though not all the reptiles then alive were dinosaurs in the strict scientific sense of the word. Geologically speaking, these 135 million years are known as the Mesozoic Era, comprising three geological periods: Triassic (duration 35 million years), Jurassic (duration 35 million years) and Cretaceous (duration 65 million years). But while the large reptiles plowed through the swamps, stomped across the earth, swam in the seas and even flew from island to island, the seed of what was to follow them came into existence. Small mammals which had originated fairly early in this era quietly survived the rule of the dragons and diversified themselves. The birds originated during the Jurassic Period and flowering plants made their appearance.

Sixty million years ago the large reptiles suddenly disappeared from the face of the earth. The word "suddenly" must not be taken too literally—it might easily have taken a million years or two, but it is somewhat mysterious



just the same. The various tribes of the dinosaurs had been very much in evidence for nearly 150 million years and at the end of the Cretaceous period there was no drastic climactic change which might be blamed.

For the last twenty years scientists have accepted minor environmental changes, such as exposing the large reptiles to direct sunlight, as one of the main factors in the extinction of the dinosaurs. But recently two Russian biologists have advanced an even more startling idea. They blame the extinction of the dinosaurs on another sun, a star not too far from our own sun—as stellar distances go—which turned into a supernova. A supernova would flood all space for many light years around with powerful radiation, from the shortest and hardest X-rays to the longest heat rays. Naturally the hard radiation coming from such a supernova would cause genetic damage, not very much in the course of a year, maybe, but considerable damage over a long time.

Of course we do not know what the life span of a large dinosaur actually was. But judging from their size and the likely rate of growth it is quite possible that the biggest of them had an individual life span of a thousand years. They may well have been a century old before they mated for the first time. This being the case, the two Russian biologists reason, the harmful rays of the supernova could wreak havoc with their genes while the genes of the small mammals which matured in a year or two escaped relatively unharmed.

It will be hard to prove that an event that took place several light years away in space deprived the planet earth of the most spectacular inhabitants it ever had. But it is an intriguing idea just the same and should be kept in mind pending future chance discoveries.

At any event the large reptiles had disappeared 60 million years ago and



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a new geological period began. It still bears the name of Tertiary Period which means “the third.” The name is a holdover from the time when geologists, trying to grope their way through the past of our planet, postulated three major periods of which the Tertiary was the most recent. Some other early geologists, it may be mentioned in passing, tried to make out six or seven distinct periods, to conform with the Days of Creation of the Bible, but the ones who assumed only three periods won out.

With the coming of the Tertiary Period we not only meet plants and animals which, though different from the ones now alive, do resemble them enough to make them seem familiar; even the map of the earth assumed the present outlines. One of the most fascinating aspects of geology is to trace ancient shorelines, to see how land and water changed places in the past of our planet. Naturally this particular kind of research grows the more difficult the farther into the past you try to go. If a geologist were asked to reconstruct the map of the earth during the Ordovician Period he could not say much more than that he is certain of the existence, as dry land, of three major land masses at that time. One of them was most of North America, the other all of Africa (except its extreme southern tip) and the third about the western half of Asia including most of Europe. One cannot be more specific than that with regard to the map of 450 million years ago.

But when it comes to the Cretaceous Period—which happens to be a rather extreme example—much more can be told. Eastern Asia existed and so did North America. It is even likely that they were connected across the Bering Strait. Australia and Africa existed too, but this about exhausts the list of similarities. In Asia the ocean covered a fairly large area to the east of the Ural Mountains; geologists call this the “Obian Breakthrough” (from the

river Ob which now flows through this area) and it connected the Indian Ocean with the Arctic Ocean. Europe, to the south of Scandinavia, which probably formed a solid land block reaching much farther to the north than nowadays, was just an archipelago of rather small islands. In the Western Hemisphere the Isthmus of Panama was flooded, as were large areas of South America. Though the North American continent had about the same eastern and western shorelines it has now, the sea made a big inroad coming from the gulf.

Some of the most spectacular fossils were found in Kansas, on the former bottom of the "Niobrara Sea of the Upper Cretaceous" which covered this inland state.

In talking about the Obian Breakthrough in the east and the Niobrara Sea in the west it should be firmly understood that these areas were precisely what they have been called, namely "covered with water." They were not true oceans, deep oceans. Geologists no longer believe—even though some did in the past—that land can become deep ocean bottom and vice versa. But most land masses are surrounded by low areas which just happen to be lower than the sea level and which are, consequently, covered with water. These areas are called "the continental shelf" and the sea above them is not the ocean proper; it is just the water above a flooded shelf. Of course a flooded shelf does not have to be at the edge of a continental land mass; a low-lying area can extend inland for a considerable distance and be flooded. It is not then called a flooded shelf, since the term shelf is used in such a way that the idea of "edge" is implied, but it amounts to the same thing. The whole Baltic Sea is such an example of a flooded land area.

While no geologist believes any more that a land mass can become the bottom of an ocean, a great number of geologists are willing to concede that a true deep ocean may come into being where land had been, namely by moving the land mass to another place.

To make this clear we need the concept of geographical latitude and longitude. The point where the 20th meridian west of Greenwich and the equator intersect is now in the Atlantic Ocean. Back in the Ordovician Period it very likely was dry land. But this does not mean that the land that then existed in that point is now at the ocean bottom. That land is still land (though it may be a flooded shelf) and is now in the northern portion of South America.

Continental Drift?

I am speaking of the theory of continental drift which was first proposed soon after the First World War by the German geologist Alfred Wegener. Wegener pointed out that the west coast of Africa and the east coast of South America (especially when seen on a globe) fit together perfectly. Since Wegener was the man who coined the words Nife, Sima, and Sial he expressed his opinion by saying that "the floating block of Sial which once comprised Africa and South America received a major crack and slowly drifted apart to form the two continents of today, the crack slowly widening until it became the South Atlantic Ocean." Wegener then went further and tried to re-

construct the "original continent" of the Archeozoic Era, of which all the later continents are supposed to be just pieces.

The present feeling among experts seems to be that Wegener went somewhat too far in his reasoning and his reconstructions but that his principal idea was right—that the continents can move slowly—and that his explanation of the origin of the South Atlantic is in all probability correct.

To return to the chronology of the events, by the end of the Cretaceous Period the map of the earth looked fairly much as it does now, except for some shallow flooding here and there.

When the new period, the Tertiary, dawned, the animals would still have looked rather unfamiliar to a visitor from the present. He would have recognized an opossum which existed in a form hardly distinguishable from the present species. But the other animals would have been quite strange, small forms, looking like small otters or like large shrews. Still, such a visitor would feel quite at home because the forests would have looked most familiar. He would see copses of ginkgo trees—one of the oldest living trees—and an occasional treefern. He would come across forests of ancient redwoods. But he would also see poplars, willows, sassafras, birch, beech and maple, dogwood, oak, and holly as well as magnolias, liriodendron (tulip tree), eucalyptus, and several kinds of palms and palmettos.

The interesting point here is that the plants were, so to speak, one geological period ahead of the animals, for the second time in geological history. Our system of the geological periods is based on the fossils of animals. Because of the ancient characteristics of the fossils of the Permian Period this period is still assigned to the Paleozoic Era. But if we went by the fossils of plants the Permian would be counted as the first period of the Mesozoic Era.

Likewise the latter half of the Cretaceous Period, the Upper Cretaceous, is counted as the last period of the Mesozoic. With the reptilian giants on land, in the waters, and in the air we couldn't do anything else. But the plants of the Upper Cretaceous were those just enumerated—modern plants.

As the Tertiary Period progressed the animals also became more modern. Soon there were early rodents everywhere. The ancestors of the cats, dogs, raccoons, and bears made their appearance. So did the ancestors of the deer, the camels, the antelopes, etc. So did the ancestors of the horse. And our own.

In the next to the last subperiod of the Tertiary an earlier event repeated itself, though on a smaller scale. Enormous swampy forests came into existence, producing coal, as had the swampy forests of the Carboniferous. The coal then produced is what we now call soft coal, or brown coal or lignite. Compared to the 250-plus million-year-old coal from the Carboniferous this lignite is quite young, only about 12 million years old.

During the last subperiod of the Tertiary a time traveller, moved from 20th Century North America to pliocene Europe, might have thought that he had not moved in time at all but only in space, namely from 20th Century America to an out-of-the-way corner of 20th Century Africa. The life forms had become that similar to what we now have, always with occasional surprises, of course; for example, saber-tooth "tigers."

About a million years ago a careful observer, especially one armed with preknowledge of what was to come, could have detected the first signs of a climatic change. Ten million years earlier the subtropics with their lignite forests—they must have looked like the Florida swamp forests of today, even containing many of the same plants—had extended quite far to the north. A million years ago the subtropics began to recede. For half a million years a mild climate still reigned. Then it grew cold.

The glacial period, the Pleistocene, began.

Ever since geologists learned about the existence of the glacial period—it was during an evening session in 1875, when the head of the Swedish Geological Survey, Otto Martin Torell, lectured before the German Geological Society—this short period has held a special fascination for them. Four times in less than 400,000 years did the glaciers grow to an incredible extent. In the Western Hemisphere the "glacier line" (during maximum glaciation) began at the Atlantic somewhat south of the 40th parallel, ran west to the south of the Great Lakes to the Dakotas, turned northward there and followed approximately the U.S.-Canadian border to the Pacific. In Europe the glacier line, starting at the Ural Mountains—what happened east of the Urals is not known yet—ran to the south of Moscow and in Poland to the south of Warsaw. In Germany the ice shield extended south of Berlin. The glacier line then ran through Belgium, crossed the Channel and the extreme southern tips of both England and Ireland. Everything north of that line was under ice, as solidly as Greenland is today.

At first, when Torell suggested that there had been a glaciation the extent of which still had to be determined, the surprise had been great enough. But then—near Innsbruck—incontrovertible evidence was found that there had been *two* successive glaciations; geology students still have to learn about the spot, the Höttinger Breccia. More research turned up two additional ones which were fitted into the scheme. The four glaciations were named, "labeled" might be a better word, with the names of four small rivers in Europe and it turned out that the periods intervening between the glaciations had been much longer than the glaciations themselves.

The scheme now looks as follows, beginning with the first (oldest) glaciation labeled with the name of the river Günz:

Günz glaciation, lasted	20,000 years
First interglacial	50,000 years
Mindel glaciation	35,000 years
Second interglacial	150,000 years
Riss glaciation	30,000 years
Third interglacial	20,000 years
Würm glaciation, first phase	20,000 years
Würm interval	25,000 years
Würm glaciation, second phase	25,000 years

The time that has elapsed since then was usually given as "between 25,000 and 30,000 years" but we have had another surprise about this during the last decade. Evidence uncovered in Wisconsin showed that at most 10,000

years had passed since the last glaciation. At first nobody believed his own eyes and his own counts; the matter was turned over to European scientists who, using European material, confirmed the American discovery.

These glaciations are fascinating on several counts. The most obvious question is, of course, "why did it happen?" I could easily write some 200 pages recounting all the theories but the last paragraph on the last page of such a book would have to contain the sentence, "The causes of the glaciation are not definitely established."

The next question is: "Do we live in an interglacial period?" Well, geologists do not think so (not counting a few pessimists) but that is all one can truthfully say.

The Origin of Man

Of course one especially fascinating aspect of the whole is that our own ancestors made their appearance just about at the beginning of the Pleistocene Period, adding one more riddle: "Where did Man originate?" We don't know that either, so far, except that the problem can be narrowed down somewhat by elimination. The Western Hemisphere can be ruled out. The same goes for Australia and, naturally, Antarctica. This leaves Asia with the European peninsula and Africa. For a long time Asia, especially East Asia, was the favorite. But then Africa put in a strong claim, backed up by intriguing fossils. Well, it was one or the other; the question is still to be decided.

But we know that Man—complete with his two characteristics, tools and fire—lived in East Asia at about the time the Günz glaciation began and we know that Man had spread over the whole earth, including the Western Hemisphere, before the Würm glaciation started its first phase. When the present geological period, formerly called Alluvium but now called Holocene (and sometimes Recent with a capital R), began, Man was just about ready to form his first civilizations.

The problem with much geological work is that it relies on chance discoveries. Of course some things can be done systematically; maps of geological formations are the example which first comes to mind. One can also check earthquake waves systematically—but one still has to wait for earthquakes to occur—and one can date the age of rocks systematically by using one, or all, of several methods relying on natural radioactivity.

But one of the major riddles in the field of the geological sciences is volcanism. It is probably safe to say that at the moment more is unknown about volcanoes than is known. But exploring the interior of an active volcano is something that can obviously not be done. However, some new engineering trick may come along—people are not expendable but robots would be. One such novel experiment is now being prepared. Before the First World War a Serbian geologist, Dr. Mohorovičić, pointed out that, at a certain depth, earthquake waves obviously encountered a sudden difference in the density of the earth's crust. This became known in selected circles as the Mohorovičić Discontinuity, now called Moho for short. Alfred Wegener said that Dr. Mohorovičić's Discontinuity was probably the bottom of his Sial blocks.

Recently geologists have decided that the best way to find out is to drill into the Discontinuity, into the "Moho," and the attempt to do so has been dubbed Project Mohole. It will be done out at sea where the Moho is closer to the surface than under land.

One hundred and fifty years of geological work has succeeded in supplying us with a reasonably complete story of the events on the surface of our planet.

Its interior still remains to be explored.

How the Age of the Earth Is Determined

Before the discovery of radioactivity all attempts to determine the age of the earth, or the age of a particular geological period, had to be mere guesses. Geologists could tell, mostly by the nature of the fossils in the various strata, which period was older and which one was younger. In other words: it was possible to arrange the geological periods into the proper sequence of relative ages, but it was not possible to state the actual age of any period. The guesses were based of how long it takes a river to carry enough mud into the sea to form a layer of a certain thickness. But even if you could establish that a certain layer of sandstone had taken 100,000 years to form there was still no way of telling how much time had elapsed between the formation of layers which are now on top of each other.

But when scientists watched the atoms of radium "decay"—that is to say change into the gas radon—they found out A) that this process was not speeded up or slowed down by any possible natural condition, and B) that it took 1200 years for half of the atoms of radium to change into radon. The "half-life" of radium, therefore, was 1200 years. This was too short a time to be useful since by that time geologists were already sure that the evolution of life had taken at the very least 15 to 20 million years. Fortunately the "half-life" of common uranium (U-238) is 4.6 billion years.

Uranium slowly changes into lead. So does the radioactive element thorium, but fortunately thorium changes into lead of a different atomic weight. The first approach then was to compare how much uranium there is still left and how much "uranium-lead" there is. This could be compared with the amount of thorium and the amount of "thorium-lead." One more approach was to compare the amount of ordinary uranium (U-238) with the amount of fissionable uranium (U-235) which has a half life of only 700 million years. The ratio between U-238 and U-235 is 140:1 at the moment. If one assumed that U-238 and U-235 had been equally abundant originally one could calculate how much time had to go by to change the ratio of 1:1 into the ratio of 140:1.

The first method (uranium into uranium-lead) gave a figure of $4\frac{1}{2}$ billion years; the third method (from 1:1 ratio to 140:1 ratio) gave a figure of nearly 6 billion years. The thorium-lead method gave a lower figure. Since not every factor can be known the age of the earth has been tentatively set at 4 billion years. It may be somewhat older. But this uncertainty applies to the age of the planet as a whole; the ages of the various geological periods from the Cambrian until now can be considered rather definite.

ASTRONOMY

Our earth, as everybody now knows, is just one among nine planets going around a star which we call the sun. The sun, in turn, is just one among thousands of millions of similar stars which form a large flattish "island universe" in space: the galaxy. On clear nights we can see the edge of our galaxy stretch across the sky; we call it the Milky Way. Our own galaxy, in turn, is just one of thousands of similar galaxies now known and the end of discoveries is not yet.

It took thousands of years until we learned to think like this, but mankind has always been fascinated with the sky, presumably because the sky offered, even to the casual observer, a picture of serenity and reliability. The sun rose every morning—even if obscured by clouds one knew that it was there. The seasons followed each other in predictable and reliable sequence. The Bible expressed the feeling in the words, "While the earth remaineth, seed time and harvest, and cold and heat, and day and night shall not cease."

But the reliability could be seen in even finer detail. The Big Dipper looked the same night after night. The constellation of Orion scintillated high in the sky in the cold night air. The moon became full after a definite number of days, a number that came to be called a "month." With some practice and experience you could predict when the evening star would flame in the west, or that every two years a bright red star, the planet Mars, would appear.

In time astronomers learned how to measure the sizes of these bodies and their distances from each other, and it was then that the term "astronomical figures" originated. While everybody is used to figures every moment of every day these figures have been kept deliberately small for easier reference. You travel 2 or 3 miles to work, your daily expenditures run between 10 and 20 dollars, your suit size is around 40 if you are male, your dress size near the figure 12 if female. Something that was "a thousand miles away" was very far, and a rich man had "a million dollars."

Against these small everyday figures the astronomers pitted their measurements: the earth's diameter is not quite 8000 miles, the distance to the moon around 240,000 miles on the average, the distance to the sun already runs to 93 million miles. And the distance to the nearest star other than the sun came out to something like 25 million million miles. Because of the unusual size of these figures they appeared outrageous and the customary contingent of people who would rather die than think resolved not to believe them.

The problem was, of course, that the terrestrial yardsticks like miles did not fit conditions in space, just as you would not express your daily ride to work in inches. Astronomers realized that they needed different yardsticks, not that they were frightened by the figures which they had measured. Millions of anything just are not convenient to handle.

The Yardsticks of Astronomy

The first yardstick they invented was the Astronomical Unit, or A.U., which is the mean distance of the earth from the sun, defined as 93,003,000

miles, though for normal usage it is just 93 million miles. Now this yardstick was perfect for our own solar system. Venus is 0.72 A.U. from the sun, Mars 1.52 A.U., Jupiter 5.2 A.U., and so forth out to Neptune with 30 A.U.

But for distances between stars even the Astronomical Unit was too small, as if one were trying to express the distances between cities in yards. Here the velocity of light could be used. Light, traveling at the rate of 186,000 miles per second, was too fast to be of any use inside our solar system. It is only a little more than "one light second" from the earth to the moon, or about 8 "light minutes" from the sun to the earth. Using the velocity of light inside the solar system was like trying to measure a man for a top coat in fractions of a mile. But outside the solar system, where light needed years to make the trip from one star to the other, this was just the right unit. One could say that a certain star was 25 light years from the earth, meaning that light, moving at the rate of 5,880,000,000,000 miles per year, would need 25 years to get there.

While the light year as an expression of distance is a convenient term, a light year is not something that is observed directly. If you try to measure the distance to another star this is what you do: you carefully determine its position during any convenient night. Then you wait for half a year. During that half year the earth has gone half-way around the sun. Now this puts you $93 + 93 = 186$ million miles from the place you were half a year ago. Now you determine the star's position again. Unless it is really far away (as most of them are) it will seem to have shifted position a little. You measure the shift which, of course, must be stated in fraction of a degree. Astronomers found out—not that this fact made them very happy—that they had to state it in fractions of a "second of arc," which is $1/3600$ of one degree of arc. Since the shift in the star's position is called its parallax it was quite obvious how a yardstick that could actually be observed should be named. If a star shifted its *parallax* by one *second* of arc it was one *parsec* away.

Expressed in light years one parsec is 3.259 light years. This yardstick is not much bigger, but most of the time it is more convenient to handle. And if it comes to really long distance, like the distance to another galaxy, you speak of megaparsecs, expressing it in millions of parsecs.

Our Solar System

Our own solar system consists of the following members: a star (the sun) is in the center. This star is accompanied by nine major planets which, in turn, are accompanied by a minimum of 31 natural satellites. A large number of minor planets, called "planetoids" or "asteroids" is part of the solar system and so is a large if undetermined number of comets. (For tables see pages 595, 596.)

The planets are subdivided into Inner and Outer planets, the Inner planets being Mercury, Venus, Earth, and Mars. They have it in common that they are fairly small and rather heavy. In size they range from Mercury, with a diameter of just about 3,000 miles, to earth, with a diameter of slightly over 7,900 miles. Mercury weighs 2.86 times as much as a ball of water of the

same diameter would weigh. Mars has a density, as this figure is called without any attempt at a derogatory meaning, of 3.96. The density of Venus is 4.86 and that of earth 5.52. The earth is the largest of the Inner planets and the densest of any planet.

The Outer planets are Jupiter, Saturn, Uranus, and Neptune. Their densities, in the same order, are 1.34, 0.71, 1.27, 1.58, but their diameters are enormous; that of Jupiter is 88,700 miles, that of Saturn 75,100, while those of Uranus and Neptune are 30,900 and 33,900 miles, respectively. It is believed that the Inner planets were much larger in the beginning, mostly by having colossal atmospheres, but that the Inner planets lost their original atmospheres because they are comparatively near to the sun. The Outer planets, being far away, kept their original atmospheres, which partly froze.

Of the Inner planets only two have satellites. The earth has its moon, which is comparatively large, with a diameter of 2,160 miles, while Mars has two tiny moons, which are so small that their diameters could never be properly measured; the estimates range between 4-5 miles for the inner moon of Mars and 8-10 miles for the outer moon.

The Outer planets all have large satellite families. Jupiter has four major satellites (their diameters, counting from the innermost major satellite on out, are: 2,300, 2,000, 3,200, and 3,200 miles, which means that two are the same size as our own moon and the other two the size of Mercury) and eight known small ones. But it is very likely that there are many more which are too small to be discovered from the earth. Saturn, in addition to its famous rings, has nine known moons. The largest of them, Titan, has a diameter of 3,550 miles, which makes it the largest satellite in the solar system. It is bigger than the planet Mercury and is the only moon in our solar system large enough to hold an atmosphere.

Uranus has five known moons, of which the two largest have diameters of 900 and 1,000 miles. Neptune has two known moons; the larger one rivals the planet Mercury in size. It can be taken for granted that all the Outer planets have many undiscovered small moons.

The outermost planet of our solar system is Pluto, which is, in many respects, a puzzle. In the first place, it is not so far out as one should have expected for several reasons; in fact, its orbit is interlaced with that of Neptune. In the second place it is a small planet with a diameter of about 3,500 miles. Pluto's peculiarities of orbit and of size have prompted the astronomer G. P. Kuyper to consider it as a "runaway moon" of Neptune, an assumption which is rather plausible, even though no one can tell how it succeeded in breaking loose from Neptune.

In addition to these planets and moons the solar system has the asteroids (or planetoids) and a number of comets as permanent members. The asteroids form a swarm of tiny planets between the orbits of Mars and Jupiter. The largest of them is called Ceres (diameter 480 miles), the smallest known ones probably have diameters of only 40 miles or so. There must be many too small to be discovered from earth; their total number is estimated at 40,000.

Naturally with 40,000 bodies moving about in a restricted space, glancing

collisions must be fairly common and it is probable that the meteorites which strike the earth—and, no doubt, the other Inner planets too—are chips out of the asteroid belt.

The vast majority of the asteroids move between the orbits of Mars and of Jupiter, and since the first half dozen of them to be discovered received female names from classical mythology the bestowing of female names to new discoveries was made a system. When the first asteroid with an orbit which crossed the orbit of Mars was discovered it was given a male name (Eros) and this, too, became a system. Now all the asteroids in the belt proper are known as the female asteroids while the one which cross the orbit of Jupiter on the outside or of Mars on the inside have male names and are collectively referred to as the male asteroids.

Finally we have the comets.

Most astronomers now have accepted Fred L. Whipple's theory that the comets are essentially balls of frozen gases which partly evaporate when they come close to the sun. The comets with definitely known orbits are always called "periodic comets" but that name does not mean that the so-called "non-periodic comets" (which have been observed only once) do not have closed orbits with definite periods too. It is safer to speak of comets with known orbits and comets with unknown orbits. The number of comets is simply unknown. Many astronomers assume that the solar system is surrounded by a shell of comets at a distance of almost one light year. The comets in this shell may number as many as 100 million and since they move with our sun through space they have to be considered members of the solar system. But not enough is known about this so far to make any definite statements.

Whether there is another major planet outside the orbit of Neptune is an unsolved problem but it is quite possible. The orbits of the so-called periodic comets usually have an aphelion near the orbit of a planet and there are about a dozen periodic comets with aphelia at a distance of 77 A.U. from the sun. This might indicate the existence of an unknown planet which is usually called Planet X. It is possible that the actual discovery of Planet X will be the first major discovery made by a telescopic camera in the first large manned artificial satellite of earth.

The Stars of the Galaxy

The total number of stars comprising our own galaxy is estimated to be about 30 billion and the diameter of our galaxy is on the order of 100,000 light years. Naturally such a large number of stars cannot be all alike and it was one of the first astronomical discoveries, long before the invention of the telescope, that stars came in different colors. Some were simply white, others scintillated bluish-white, some were more yellowish, and a few simply red.

We now know that these different colors, apparent to the naked eye, indicate different surface temperatures of the stars, and in the course of time a table could be drawn up showing the so-called stellar classes. It begins with the hottest, which is called Type O, and ends with the coolest, which is known as Type S.

TABLE OF STELLAR CLASSES

Type	Color designation	Surface temperature (degrees centigrade)	Example
O	————	30,000 +	Zeta Puppis
B	blue-white	22,000	Rigel
A	white	11,000	Sirius
F	white-yellowish	8,000	Procyon
G	yellow	6,000	Capella, Sun
K	orange	4,000	Arcturus
M	red	3,000	Antares
R	(comb. of K and N)	3,000	S Camelopardalis
N	ruby	2-3,000	19 Piscium
S	(similar to M)	"low"	R Geminorum

NOTE: To help students remember the sequence of the classes somebody invented the request: "O Be A Fine Girl, Kiss Me Right Now, Sweetheart." On a more serious level, it may be mentioned that a designation like F_5 indicates a star halfway between type F and type G.

Binaries

It had also been noticed since ancient times that there are a few stars which are very close together, but not much attention was paid to this fact until about a century ago.

We now know that a surprisingly large number of stars are "binaries," also called "double stars." There are various types of binaries and the first type that is usually mentioned is mentioned for the sole purpose of explaining that it does not count. These are the so-called "optical binaries," two stars which appear to be close to each other just because they happen to be in almost the same line of sight as seen from earth. In reality they have nothing to do with each other.

The true binaries, those that actually form a system, are given designations which merely explain how their nature was, or is, established. Astronomers will speak about "telescopic binaries." These are stars which to the naked eye look like single stars, but the telescope will reveal the fact that they are binaries. Some are referred to as "eclipsing binaries," which means that the two stars going around each other do so in such a manner that one moves in front of the other as seen from earth. Since one component of the binary is likely to be brighter than the other, the fact that it is partly obscured by the less luminous component shows up in a reduction of brightness of the whole. The term "spectroscopic binaries," finally, means that the binary nature of this particular type has been established with the spectroscope.

As has been implied when explaining the term "eclipsing binary," the components of a binary do not have to belong to the same stellar class; in fact they rarely do. Nor must the term "binary" be understood too strictly as

meaning "two stars." Triple systems are known and it has happened that the two components of a telescopic binary each turned out to be a spectroscopic binary. The nearest other star, Alpha Centauri, for example, is a binary of two white stars, going around each other, with a faint red star (called Proxima Centauri) in orbit around that binary.

The Life History of a Star

Astronomers have felt for a long time that the various types of stars one could see in the sky might simply represent different stages in the life of a star. About eighty years ago an astronomer would have delivered the following explanation: after a star comes into existence it will shine vigorously with a bluish-white light. Many thousands or millions of years later its energy and vigor will have diminished somewhat and its light has now become a pure white. Still later the light will become yellowish, then orange and, finally, dim red, the last feeble afterglow of old age. And then the red star will cool off completely and become dark and nonluminous, invisible against the black background of space, a stellar corpse.

This explanation, which could even be "demonstrated" by heating a ball of iron to white heat and watching it cool off slowly, obviously drew an analogy to human life though one could have pointed out that the growing-up period seemed to be somehow missing.

But until atomic energy was discovered and its peculiarities and laws became known this was the best explanation that could be offered. We now know that it is nearly the other way round. The normal life process of a star begins with invisibility—the gas and dust which will make up the star are too diffuse in space to be seen. Gradually, under their mutual gravitational attraction—and partly because the light from other stars, exerting a little pressure, pushes them together—the gas arranges itself into a spinning ball. It still is poorly shaped, there are all kinds of vortices and eddies floating around it. These vortices and eddies are thought to become the planets and moons at a later stage. At any event this contraction of diffuse gas does not give birth to a star in the strict sense of the word; it gives birth to a whole solar system.

As the center of the whole, the later star begins to condense some more; its center, or core, begins to reach temperatures where it begins to glow. Then the star should be faintly visible; at this stage it is called a proto-star. As condensation continues, the core grows hotter and hotter and the star becomes more and more visible. In time the core reaches the temperature which is hot enough to start a nuclear reaction. The star now glows with light which is produced by atomic energy; it is now a star.

At the moment of this transportation of light from simple pressure-generated heat to nuclear energy something seems to go wrong with some stars. As its core acquires atomic ignition and large amounts of energy are generated the whole star expands. As it expands the temperature at the core drops below the point where an atomic reaction can be sustained. The star is no longer an atomic generator; the energy generated has been used up in

expansion and now it begins to contract again. Logically, the heat at the core now rises again and after a while reaches the temperature of "atomic ignition." Then the whole cycle starts over again. These stars are known as "pulsating stars" and the main question about the whole performance is whether it can ever stop.

Most stars, however, do not pulsate. After they have become stars running on nuclear reactions they keep on doing so. As they keep on, they grow hotter, the precise opposite of the old explanation.

However, it is not hard to understand why this must be so. Since the temperature must be highest at the core the atomic reaction must begin there. You get a rather small sphere of atomic activity in the center of the much larger sphere which is the star. This central core of atomic activity will slowly grow. What is inside that core is helium, the substance that is the "ash" of the hydrogen fusion reaction. Outside the growing core is mostly hydrogen, the fuel for the fusion reaction.

The reaction itself takes place on the surface of the growing core; the larger it grows the larger its surface and the larger the generation of energy. Thus the star progresses from dim light through orange and yellow to yellowish-white and finally pure white. As the distance between reacting shell (of the helium core) and the star's surface lessens, the star's surface temperature goes up.

But the reaction does not peter out when nearly all the hydrogen has been used up. The end is sudden and catastrophic—an incredible explosion. The outer layers of the star are blown into space by this explosion, forming an expanding gas shell. The core, which grew large, still hot but no longer capable of generating energy, collapses and forms a relatively tiny (about the size of a large planet) and incredibly dense star: a so-called "white dwarf." This is the true "stellar corpse," still shining because of the heat it had acquired in its active past.

Novae and Supernovae

The process of explosion and collapse is called "nova," the Latin word for "new," because it looks as if a new star had suddenly appeared. For in the process of explosion and collapse, the star shines more than a hundred thousand times as brightly as it did during the few millions of years preceding the collapse.

While the "nova" explosion seems to mark the normal end of a star's life there is a similar phenomenon which is called a supernova. In a nova explosion a star shines a hundred thousand times as brightly as it did before. In a supernova explosion it shines 100 million times as brightly as before and may outshine, for a period of a week, the whole galaxy to which it belongs.

We do not know yet what causes a supernova. One possibility is that it is the result of a collision between two stars, possibly stars which are still fairly early in their careers and have a great deal of hydrogen fuel left which is then consumed with incredible rapidity.

The fact that the normal nova explosion marks the normal end of the life

of a star has an interesting result. Our galaxy is, as has been mentioned, a spiral nebula, with a definite core and several spiral arms. We are in one of these arms, about two thirds of the way to the edge. Astronomers have found that the arms differ fairly considerably from the central disk. They say that the arms have Stellar Population Type I. In this type of stellar population you find lots of dust between the stars, sometimes forming enormous so-called diffuse nebulae. In Population I you also find very large stars (so-called supergiants, presumably young stars) while nova explosions are rare. In the central disk you find *no* dust between the stars and nova explosions are frequent. The fact that all the dust has been swept up in this area of Stellar Population Type II and that nova explosions occur strongly indicates that the center of our galaxy is farther ahead in stellar evolution than the spiral arms. The central disk is slowly beginning to burn out, the spiral arms are still vigorous and near the beginning of their career.

CHEMISTRY

The Discovery of the Elements

Chemistry is the science dealing with the changes which substances undergo spontaneously or can be made to undergo. However, not every change which a substance might undergo is the concern of chemistry.

I have a bar of steel. I magnetize it. Obviously the steel has undergone a change of some kind, but this particular change is the concern of physics. I heat the same steel bar to red heat so that it can be bent easily. Again it has been changed, but again the change is the concern of physics. But now I direct a stream of pure oxygen at the still red-hot steel bar and let it burn to iron oxide. The change from a metal to something else is the concern of chemistry.

The fundamental concept of chemistry is that there is a certain number of substances which are not combinations of other substances. These simple substances, the building blocks of everything else, are the chemical elements (see table on pages 194-95). These elements cannot be taken apart any further by chemical means. They will combine with each other and form compounds in accordance with well-established laws. But it is impossible, by chemical means, to change one element into another.

The main idea is a simple one. There are so and so many different building blocks of different sizes and shapes. You can put them together in so and so many different ways. You can also take them apart, but there is nothing you can do to the building blocks themselves. They remain forever unchanged. Their total number, while fantastically large, also remains unchanged. And you cannot use one type of building block in lieu of another one without getting a different result (compound).

The first job, once this idea is established, is obviously to recognize the building blocks, to say which substances are elements and which are compounds. This proved to be extremely difficult, partly because nobody was absolutely certain what to seek, partly because during the first part of the 17th

century two Germans, named Becher and Stahl, had made a most ingenious wrong guess.

To explain it, let's return to our example of the steel bar. That bar, left alone, would slowly rust. The heap of rust which was left could be shown to weigh more than the steel bar had weighed. Becher and Stahl theorized that the steel, when it was still metal, had been a compound of the rust and of an assumed substance which they named *phlogiston*. As the steel rusted the phlogiston had escaped. Now phlogiston, it became clear from checking a large number of similar happenings, was a substance which had a most special characteristic: it had a negative weight! Naturally, when it departed from a compound, whatever was left behind had to increase in weight.

The refutation of this nonsense—and with it the discovery of the true elements—occurred in several steps but was mainly the work of one man, the Frenchman Antoine Laurent Lavoisier. He proved, plainly and simply, that the earlier experimenters had not weighed things carefully enough.

For example, he heated litharge (an oxide of lead) and everybody who dabbled in chemistry knew that this would result in lead. Everybody also knew that the lead would weigh less than the litharge that had been heated, due, no doubt, to the fact that the litharge had combined with phlogiston.

Lavoisier repeated the well-known experiment, but he did the heating in a closed vessel and reported that a large volume of "air"—"about a thousand times the volume of the litharge used"—was given off at the instant the litharge changed into lead. The metal, Lavoisier reasoned, was lighter because of all the "air" that had been given off.

Within a few years of Lavoisier's report, Scheele in Germany and Priestley in England independently discovered oxygen and soon chemistry was on the right path. Before Lavoisier, the oxide had been taken to be the simple substance and the metal had been believed to be the compound. Some time after Lavoisier it was clear that the metal was the element.

The Number of Elements

Most people who are now old enough to have children in school learned, when they were in school themselves, that there are, or must be, 92 elements, though not all of them were known. They probably also learned (though they may have forgotten this fact in the meantime) that the vast majority of these 92 elements are metals.

Eleven elements are gases at room temperature* while an even dozen are nonmetallic solids.† Since the day of the atom bomb it has become generally known that a number of "man-made" elements have been added and that the total number is now 102. For this reason the 92 elements of the older chemistry texts are now designated as the "92 naturally occurring elements."

Actually things are not quite that simple.

* Hydrogen, oxygen, nitrogen, chlorine, fluorine, sulphur, helium, neon, argon, krypton, xenon, and radon.

† Boron, carbon, silicon, phosphorus, sulphur, selenium, tellurium, bromine, iodine, arsenic, antimony, and bismuth. Some chemists prefer to call the last three "semi-metals."

Elements Number 61 (promethium), 85 (astatine) and 87 (francium) do not really occur in nature, while the most famous of the "man-made" elements, plutonium, does occur in Nature, though in minute quantities; it is rarer than radium, the proverbially rare element. But instead of quibbling what the number of naturally occurring elements "really" is, let us take up the much more important problem of how a man-made element is possible since it had been so definitely stated that elements cannot be changed. But that statement contained the phrase "by chemical means" and that is still correct.

The atom of an element consists of a nucleus composed of two kinds of major particles, the proton and the neutron. They are about alike in mass; the major difference is that the proton carries a positive electrical charge while the neutron, as its name indicates, is electrically neutral. This nucleus is surrounded by electrons (much smaller than the protons or neutrons but with an electric charge, negative, which balances that of the proton). Now if an atom should lose one or several electrons, which it will at very high temperatures, the chemical nature of the element is still unchanged. But if you somehow succeed in adding an extra proton to the nucleus, or to make one of the neutrons in the nucleus change into a proton, you deal with a different element.

Chemical means do not and cannot touch the nucleus of an atom. That is in the field of nuclear physics, which received its first starting point because a few of the heavy elements naturally change their nuclei in the course of time.

Atomic Number and Atomic Weight

It has been mentioned in the preceding section that (among others) element No. 85 does not really occur in nature. The number used there is known as the "atomic number." Every element has such an atomic number: the gas neon, for example, has No. 10, silver No. 47, lead No. 82, and uranium No. 92. Are these just arbitrary numbers? Could chlorine, for example, be No. 71 instead of being No. 17? The answer is that it couldn't because the atomic numbers are not arbitrary.

To explain what they mean we have to go back to the explanation of the nucleus of an atom, beginning with the simplest of all atoms, ordinary hydrogen. The nucleus of a hydrogen atom consists of just one particle, a proton. One solitary electron moves around this proton. The single electron indicates that there is one electrically charged particle in the nucleus. Hence hydrogen has the atomic number "1." Now there is such a thing as "heavy hydrogen," also called "deuterium." Its nucleus consists of one proton and one neutron, with one electron going around it. Does that make it number 2? No, the neutron carries no charge. Deuterium is still in the atomic number 1 even if it does weigh twice as much (approx.) as the normal hydrogen atom. The same reasoning applies to "tritium," which has one proton and two neutrons in its nucleus—still only one charge, only one electron, still atomic number 1.

But there is another atomic nucleus of very nearly the same mass as that of tritium. Its name is "tralphium" and it consists of two protons and one neutron. Two electrons go around it. This makes it atomic number 2. "Tralphium," incidentally, is "light-weight helium"; the normal helium atom has a

nucleus consisting of 2 protons and 2 neutrons with 2 electrons going around it.

The atomic number, then, is determined by the number of electric charges carried by the nucleus. One might also say that the atomic number is the same as the number of electrons going around the nucleus, but if one wanted to use this definition one would have to add "if all electrons are present." As has been mentioned, an atom can lose one or several electrons without changing its chemical nature. But it could not lose a charge from the nucleus without becoming another element. But under normal conditions the atomic number expresses both: the number of charges in the nucleus and the number of electrons.

Just in passing it might be mentioned that this also explains the concept of the "isotope." Chemically there is no difference between the three kinds (isotopes: the name, derived from the Greek, means "in the same place," referring to the atomic number) of hydrogen. Nor is there a difference, chemically speaking, between the two isotopes of helium.

Atomic weight is another story.

Let us look at random at some of the atomic masses listed in the tables on pp. 194-95. Hydrogen, we see, has an atomic mass of 1.008 and helium one of 4.003. Sodium is 22.99, tin 118.7, iodine 126.91, and mercury 200.61. When looking at these figures one cannot help but feel a certain suspicion grow. All these figures are nearly whole numbers and as far back as 1840 an English chemist tentatively advanced the idea that hydrogen might be the only true element. All other elements looked like simple multiples of hydrogen; the minor discrepancies might be just minor errors in experimental determination of the masses. We now know that this idea was wrong. Part of the explanation of why the atomic masses are the figures they are is that the various isotopes of different masses are all weighed together and, of course, some isotopes are less abundant than others.

While the atomic number represents the number of electrical charges in the nucleus, the atomic mass is the actual mass, that of the naturally occurring mixture of isotopes of that particular element.

The Concept of Valence

The third term to be discussed is the term "valence." One of my own teachers used to say that the term "valence" needs no explanation whatever if you substitute the word "arm." The valence of hydrogen is "1"; it is a one-armed element, he explained, which can hold on to only one other atom. The valence of oxygen is "2"; it can hold on, simultaneously, to two other atoms—for example, to two hydrogen atoms producing $\text{H}-\text{O}-\text{H}$, customarily written H_2O , or water. Continuing in the same vein, the antimony atom would be a starfish with five arms (but it may use only three) while the metal osmium would be an octopus with eight arms, though it does not have to use all eight of them.

The valence (or valences) of a chemical element has nothing to do with either its atomic number or its atomic weight. There are six elements, the

so-called noble gases, which have no valence at all, and which do not form compounds of any kind. We'll see why in a moment.

The Electron Shells

The single electron which moves around the hydrogen nucleus might be said to have a certain orbit around the nucleus. Partly in order to avoid confusion with astronomical orbits, partly for other reasons, it has become customary to refer to this orbit as the "shell." The helium atom, with two electrons, has both in the same shell. This is the maximum number of electrons the first shell, or "first energy level," can accommodate. Element No. 3, lithium, has three electrons. Two of them move on the "first level," or the first shell, the third one is in the next level, since the first one can accommodate only two electrons, not more.

The second level can accommodate 8 electrons; hence if we have an atom with 11 electrons there will be 2 in the first, 8 in the second and a single one in the third.

Altogether there are six shells or energy levels. To see how a large number of electrons would be distributed through these various levels let us look at the "noble gases" which demonstrate this very neatly, because in the case of these gases every shell or level is always filled up to the last place.

ELECTRON DISTRIBUTION OF THE NOBLE GASES

Name	Chemical symbol	Atomic number	First level	Second level	Third level	Fourth level	Fifth level	Sixth level
Helium	He	2	2	—	—	—	—	—
Neon	Ne	10	2	8	—	—	—	—
Argon	A	18	2	8	8	—	—	—
Krypton	Kr	36	2	8	18	8	—	—
Xenon	Xe	54	2	8	18	18	8	—
Radon	Rn	86	2	8	18	32	18	8

Studying this table we see quickly that the innermost shell can not accommodate more than 2 electrons, the second shell not more than 8, while the higher levels from the third one out can accommodate more electrons than 8, but that no shell can hold more than 8 if it is the outermost shell in a given case. Naturally the outermost shell cannot "fill up" if any of the inner shells—not counting the first—holds less than 8 electrons. Each of these gases has its outermost shell full—and that is the reason why they cannot form any chemical compounds. To produce a chemical compound the element must have at least one hole in its outermost electron shell.

For an example let's use chlorine. Being No. 17 it will have 2 electrons in the first shell, 8 electrons in the second shell and 7 electrons in the third shell. Hydrogen also has an unsatisfied shell, its first with only one electron in it, and hydrogen and fluorine will "readily" form a compound, as chemists put it. This word "readily" is the worst kind of understatement there is. Nothing

devised so far will prevent them from forming a compound if they are brought together.

Oxygen, being No. 16, must have 2 electrons in the first shell, 8 in the second; which leaves 6 for the third shell. No, it can't combine with helium, which has two electrons, because the first shell of the helium atom is satisfied and therefore opposed to involvements. But two hydrogen atoms will be able and willing and we now know the real reason for the compound H_2O .

In short, then, only atoms in which the outermost shell is "unsatisfied" (not filled up) will combine with others which can "satisfy" the outermost shell. The satisfaction may not be complete, so that other atoms can enter the union, forming more complicated molecules.

The Periodic Systems

While no element can really replace another in any compound without changing the compound, it became clear quite some time ago that some elements bore some semblance to each other. Obviously the "noble gases" which do not form any compounds at all have something in common in spite of their differing atomic weights. The same goes for fluorine, bromine, chlorine, and iodine. Among the metals, iron, cobalt, and nickel show a certain family resemblance and the same goes for osmium, iridium, and platinum.

Just as a zoologist will group animals by their resemblances and obtain a useful system of classification, it should be possible to arrange the chemical elements in a similar manner, some chemists reasoned. And if the job were done right, they continued reasoning, such a system should prove useful. After all, there is nothing in science which is as practical as a workable and reliable theory.

Several researchers tried this at about the same time—during the years from 1860 to 1870—and two of them, one Russian and one German, acquired fame for doing it: Prof. Dimitri Ivanovitch Mendeleyeff and Dr. Lothar Meyer. Mendeleyeff always freely acknowledged that Meyer had done it earlier than he had himself, but a later generation of chemists found Mendeleyeff's system more practical so that his name is now attached to the Periodic Table.

At the time Meyer and Mendeleyeff tried to devise their systems only about 56 elements were definitely known, with a few others suspected. The arrangement was done with regard to such chemical characteristics as which type of metal-salt of the same chemical formula (with only the symbol for the metal being different) would be formed. It was a tedious job which had to be accompanied by much guesswork at first. And in the course of trying to fit the elements together in interlocking vertical and horizontal rows a large number of difficulties cropped up. Mendeleyeff is reported to have been dismayed at first when something did not fit where he expected it to fit. Maybe the element's characteristic which prevented it from fitting had been wrongly determined. Anybody can make a mistake and publish it with the best of intentions.

But then he found a few cases where an element would fit fine but one line lower than expected, leaving an empty space. Mendeleyeff assumed that this empty space would be filled in by a discovery still to be made. In fact he went

so far as to predict three undiscovered elements. He named them with the name of the element next to them, using the Greek word *eka* ("neighbor") as a prefix. He entered eka-silicon (silicon's neighbor), eka-boron, and eka-aluminum and had the good fortune to live long enough to see them discovered. Their names (in the same order) are now: germanium, scandium, and gallium.

How positive he could be in his prediction can be shown by quoting his case for eka-aluminum (gallium): He said that it would be a metal (it is) with an atomic weight of about 68 (actual value 69.72) and a specific gravity of 5.9 (actual 5.903), should not be affected by the air (it isn't), should dissolve rather slowly in acids (it does), form an oxide of the formula Ea_2O_3 (it does, with the formula Ga_2O_3) and salts of the type EaX_3 (it does), and that its hydroxide should be soluble in acids (it is). He even said that the melting point of this unknown metal should be low—the actual melting point of gallium is just below 30° centigrade or 85.5° Fahrenheit.

Mendeleyeff's system, in its final form, had room for 92 elements, with hydrogen at the beginning and uranium at the end. It turned out to be correct all the way and even complete until nuclear physics came along and added ten more elements at the upper end.

PHYSICS

It would be a mistake, pure and simple, to assert that one branch of science is "bigger" than another one. The field of each science is literally endless and in each one there will always be something that still awaits thorough investigation. And each science deals with millions of facts and no matter what number you assign to the facts of a science this number is bound to be larger next week.

But it can be said that physics covers a more diversified array of facts than other sciences do. The physicists themselves divide their field into a number of areas and the specialist in one rarely claims to have more than a working knowledge of the others.

One such area is "mechanics," the foundation of all simple machinery, of all engineering where neither heat nor electricity enters the picture. Mechanics, naturally, is tied up with the properties of matter; you cannot assign a job to a piece of iron or even a gallon of water unless you know its properties. But since these properties may depend on the temperature of the material, the next large area of physics is heat and its effects. The practical outgrowth of this knowledge is the multitude of heat engines, from the simple steam engine to turbojets and rockets.

Still another large area is sound, which is intimately connected with wave motion in general. Another area of physics is electricity and magnetism. Originally this dealt only with electrical phenomena and their connection with magnetism, leading to all the equipment which we now associate with the word "electrical." But the area of electricity and magnetism, by way of the discovery of radioactivity, opened up the additional area of nuclear physics which started delving into the constitution of matter.

Finally there is the area of light (optics), which probably began by trying

to explain why a mirror is a mirror but which also ended up by investigating the constitution of matter.

SOUND

Sound is a physical phenomenon with which everybody is intimately familiar. Sound is so common that we fail to notice it much of the time. In fact, it is a very depressing experience to be deprived of *all* sound in a really soundproof room such as have been built by several research centers.

Sound can be produced in many ways—by an explosion, by the fast passage of an object through the air, and by other means—but the most customary method is by vibrating a solid body. The vibration of violin strings can clearly be seen though the sound we hear is caused mainly by the (invisible) vibration of the violin's body.

Sound is carried by the atmosphere. In a vacuum there can be no sound unless the vibrating body touches another body and the listener's ear is pressed against that body. In the atmosphere the sound waves are best pictured as rapidly expanding bubbles, each "bubble" representing a compression of the air. Since the amount of energy which caused the sound is a given quantity, but the compression shells grow steadily in size, the amount of energy, say per square foot of the sound wave, grows smaller very quickly. Physicists call this the "law of inverse squares": if a sound has a certain intensity at one unit of distance from the source, its intensity will be $\frac{1}{4}$ at two units distance, $\frac{1}{9}$ at three units distance, $\frac{1}{16}$ at four units distance, and so forth.

This "inverse square law" is not the special domain of sound; it also applies to the intensity of light, of radio waves, and even of gravitation because the inverse squares just express the mathematical relationship of the radius of a sphere to its surface. Since the sound wave is the result of the movement of air molecules, the intensity of a sound wave, at a sufficient distance from the source, becomes so small that the natural motion of the air molecules is greater than the effect caused by the sound. This not only indicates that the sound can no longer be heard; it also indicates that the sound is "lost." Stories written to the effect that somebody invented a device which would reproduce a sound made a long time ago may be interesting fantasies but lack any scientific background.

It is true, however, that very loud sounds—such as a major volcanic catastrophe or the explosion of an ammunition dump holding more than about 50 tons of TNT—produce the phenomenon of a "zone of silence." For a distance of a score of miles or so the intensity of the noise follows the familiar inverse square law. Then follows a ring-shaped zone in which the noise cannot be heard and this is surrounded by another zone where the noise is audible again, though at a greatly reduced intensity. This phenomenon is caused by reflection of the sound in a layer in the upper atmosphere. The fact that this cannot be observed in the case of a lesser explosion, say that of a single heavy bomb or shell, is probably due to the low intensity beyond the zone of silence. The sound, though theoretically audible, is so weak that it disappears in the normal background noise.

The Velocity of Sound

Sound, though normally transmitted by air, is also transmitted by liquids and by solids. The velocity of sound varies with the nature of the substance transmitting it and also with the temperature of that substance.

Measured at the temperature of 0° centigrade, the freezing point of water, the following velocities occur:

carbon dioxide	856 ft/sec.
air	1,089 —
water	4,707 —
sea water	4,769 —
pine wood	10,824 —
steel	16,318 —

It can be seen that sound travels fastest through solids but comparatively slowly through gases, like air. Since the velocity of sound in air happens to be quite near to a thousand feet per second the old rule of thumb that lightning is as many thousands of feet away as the number of seconds which elapse between the lightning stroke and the thunder becomes understandable. The time interval required for the light from the lightning to travel to the observer is measured in millionths of a second, and is therefore negligible.

At higher altitudes sound travels more slowly than at sea level. This is *not* due to the lesser density of the air at higher altitudes, as is generally believed, but rather to the fact that air at higher altitudes tends to be colder. What matters is the temperature of the air, not its density. At 32° Fahrenheit, as has been stated, the velocity of sound in air is 1,089 feet per second. At minus 40° Fahrenheit the velocity of sound in air is 1,006 feet per second; this is the normal temperature five miles up. At an altitude of 100,000 feet the velocity of sound is down to 971 feet per second; this is the lowest velocity that can be expected to occur naturally in our atmosphere.

The Doppler Effect

When a fast-moving police car with its siren going passes you on the highway the sound of the siren seems to change pitch at the instant the car passes you. As the police car comes toward you its siren seems to sound a much higher note than after passing you. This is known as the Doppler effect, named after the Austrian physicist Christian Johann Doppler, who lived during the first half of the nineteenth century.

The principle of the Doppler effect is easy to understand. The speed of sound at a normal temperature is 760 miles per hour. If the police car moves at 76 miles per hour the source of the sound moves with 10% of the speed of the sound itself. Hence the number of sound waves that reach your ear is 10% higher than it would be if the source of sound did not move. From the instant of passing the source of the sound moves away from you; hence the number of sound waves reaching your ear is 10% less than it would be if the sound source were stationary. The larger number of sound waves produces a higher pitch, the lessened number a lower pitch, and a difference of 20% is, of course, quite noticeable.

If the pitch of the sound source at rest is known, it is not at all difficult to calculate the speed of the vehicle from the difference in pitch.

Echo and Focusing

Everybody is acquainted with echoes. An echo is simply a reflected sound wave, but while reflected sound waves are common there are usually too many different sounds reflected from too many different objects at different distances to enable the observer to distinguish any one of them clearly. A good echo can be heard when there is only one reflecting surface, for example a vertical cliff and only one sound at the time. The distance of the echoing surface can be determined in a manner similar to gauging the distance of distant lightning. Of course a time interval of ten seconds between shout and echo does not mean that the echoing surface is about 10,000 feet away; it will be about 5,000 feet away, since the sound has to make a round trip.

The echo principle is put to good use at sea for measuring the distance to the bottom. A sharp sound is produced under water (for example by discharging a cartridge) and the sound is bounced off the bottom. Measuring the time interval and multiplying it with *half* the velocity of sound in sea water gives the depth. This method can miscarry in two ways. Sometimes living organisms floating at a certain depth in the water can produce a false echo which makes the water seem to be much shallower than it really is. If the depth is considerable and the bottom is covered with a thick layer of very soft ooze no echo may be returned.

By means of a vertical shell of proper shape the sound waves may be focused so that an observer in the focus of such a shell might be able to hear a sound much too faint to be heard under normal circumstances. This principle was utilized in an unfair manner in various courtly pleasure gardens in Europe in the past. Two such shells were placed opposite each other across a wide boulevard in the park, with inviting stone benches, which could not be moved, in their focal points. Confidences exchanged in one of the shells could be clearly heard in the focal point of the shell across the way. It is also reported, however, that educated lovers turned this principle around to their own advantage: they could exchange talk even when carefully watched, each one sitting alone in a stone shell far from the other.

LIGHT

There are many similarities in the behavior of sound and of light, even though the physical phenomena are quite different. Psychologically speaking, a complete absence of light is about as depressing as a complete absence of sound. But the physical behavior is quite similar too. Like sound, light follows the inverse square law, it exhibits the Doppler effect (in fact Doppler first derived his principle from the behavior of light), it can be absorbed by some surfaces, and it is reflected by others. And it can be focused by a reflecting surface.

The most obvious differences between light and sound are, first, that light has a much higher velocity (about 186,000 miles per second), and second,

that light does not need a medium to be transmitted, the way sound needs air.

While the velocity of light can be simply measured by several methods which are in good agreement with each other, the fact that light does not need a medium to transmit it is harder to explain. In the past it was assumed, largely because of the analogy of sound, that there is a special medium for the transmission of light and related phenomena (such as radio waves). This medium was assumed to pervade not only empty space but also all substances and was named "ether." Certain experiments then made it appear doubtful that the "ether" actually existed but an attempt to suppress the use of the word was unsuccessful. The term was not only established; it simply was very useful and many physicists still use it with the explanation that they do not have a special medium in mind, but use the word "ether" for the property of space which transmits light.

The nature of light is still not fully understood or explained. The Dutchman Christiaan Huyghens (in 1678) stated that light was a wave motion like sound. Sir Isaac Newton in England, at about the same time (1672), visualized a luminous body shooting out "corpuscles" so that the sensation of vision was due to the impact of these corpuscles, while Huyghens explained the sensation of vision as due to the impact of wave fronts. Since then, these two principal explanations have vied with each other for recognition (what Newton called "corpuscles" was later named "photons" and defined as "units, or atoms, of light." The facts are that a few types of radiation are known which definitely are corpuscles (they are consequently called "corpuscular radiation"), while light, in certain experiments, sometimes seems to indicate a corpuscular nature and sometimes, in other experiments, gives every indication of being a wave front. The contradictions between these two concepts still remain to be resolved.

The fact that light does exert a certain, though small, amount of pressure (first demonstrated about 65 years ago by Professor Pyotr Alexeyevitch Lebedev) does not provide a choice between the two concepts, since both corpuscles and wave fronts could produce the effect.

For most theoretical and for all practical purposes it is convenient to think of light and related radiations as being waves of different wave lengths. The shortest wave length normally produced are the X-rays. Above them, in order of increasing wave length, we have ultraviolet, visible light, infrared (heat), and radio waves, which by themselves have an astonishing range of wave lengths. Of visible light the longest wave length is that of red light and the shortest that of violet light. It is usually said that our eyes do not respond to shorter wave lengths than that of violet light. In this form the statement is wrong; our eyes do respond to concentrated ultraviolet light with a typical (and exceedingly painful) pathological condition. What should be said is that our eyes do not receive wave lengths above red or below violet as light.

Light and Matter

Matter in any state, whether solid, liquid, or gaseous, will be either transparent or opaque to light. Atmospheric air and all other gases with only a

very few exceptions are nearly perfectly transparent to light rays. So is water if the layer is thin enough, but a sufficiently thick layer of water—say 600 feet or more—becomes opaque; the light is absorbed in its passage and none will pass through. A substance called normally opaque, such as heavy sheet metal, will absorb all the light and not permit any of it to pass. But even with these opaque materials it is a question of thickness—a fine gold foil will permit some light to pass. The reason why gold foil is usually mentioned is simply the fact that it is very difficult or actually impossible to form other metals into sheets of sufficient thinness to be transparent.

Selective Transparency

While normal colorless glass is transparent, colored glass is *selectively transparent*. Red glass will permit red light to pass, but stop all other wave lengths. Green glass will permit green light to pass, but no other. The concept of selective transparency is very important because if the investigation is extended to all wave lengths instead of just to visible light we find that there is *no* transparent substance but that all are selectively transparent. A quarter-inch sheet of aluminum, for example, is selectively transparent to X-rays; it will let X-rays pass but stop everything of a longer wave length.

Our atmosphere, which appeared to be nearly perfectly transparent for visible light, is also selectively transparent. It will permit what we call visible light to pass, but it is opaque to shorter wave lengths than visible light and is equally opaque to longer wave lengths until it comes to radio waves of a certain length, when the atmosphere grows transparent again.

In addition to selectively transparent substances and those which are opaque unless they take the form of a microscopically thin sheet there are substances which are reflectors. They do not permit light to pass through them, nor do they absorb much, but they reflect it. If there were a perfect reflector 100% of the light striking it would be reflected and none would be absorbed. Such reflectors can be used, when properly curved, to focus light and other rays. This focusing effect can be used directly for the purpose of concentrating solar energy (as in solar furnaces) or it can be utilized in a less direct manner as is done in astronomical telescopes and astronomical cameras. The working principle of a telescope is that the focusing produces a sharp image of the body which emitted the light. This image is not large, as a rule; the "magnification" is accomplished by looking at this image through a system of magnifying lenses.

But light rays can also be focused by substances (selectively) transparent to them if these substances are given the proper shape. A convex lens (one where the center is thicker than the rim) will produce such a focus and a focal image: the principle behind all nonreflecting telescopes, microscopes, cameras, and all other portable optical equipment. While the principle is simple there are a number of practical difficulties, one of which goes under the name of chromatic aberration. A fine example of chromatic aberration can be observed with a home-made telescope where a simple magnifying glass has been used as the main lens. While magnification is achieved with such a tele-

scope every object will be surrounded by rainbow fringes—this looks very pretty at first glance, but gets annoying very quickly.

The reason for the chromatic aberration is that the different wave lengths are focused at different distances from the lens; the “red focus” is somewhat farther from the lens than the “violet focus.” There is no way of remedying this condition with a single lens, but there are different kinds of glass which produce different focal lengths for the different wave lengths. A combination of lenses of different types and of different kinds of glass can suppress chromatic aberration to the point where it can no longer be noticed. This is the reason why modern optical equipment never has a lens, but always a lens system. Another refinement of modern optical equipment is the use of prisms. The focal length—that is, the distance from the lens where the image forms—is normally inconveniently long. In the old-fashioned “glass” of the sea captain of the past, with its length of two feet or even more, this focal length showed up clearly.

The focal length itself cannot be changed, but in a modern “glass” the focal length has been folded up like a folding ruler by means of prisms where the light goes back and forth. Inside a prism, by reflection from its inner surfaces, the case that could not be realized with a mirror—namely that all the light is reflected and none absorbed—can actually be accomplished.

A prism used by itself—in reality it is always a set of prisms—will produce a strip of rainbow-colored light from a white light beam. This colored strip of light is called a spectrum. The effect itself was long known as a curiosity but when it was discovered that every chemical element when glowing would produce just a few narrow lines of light in such a spectrum, the set of prisms with auxiliary equipment became an important research instrument. It is this instrument, the spectroscope, which enables us to state which elements glow in a distant star. The spectroscope can also be, and is, used for laboratory work to detect impurities; it not only tells that impurities are present, it clearly states what they are. The spectroscopic method is not only faster, as a rule, than chemical analysis; it is also more sensitive by being able to detect smaller amounts of impurities.

HEAT

The words which are a fitting opening for a discussion of heat in the context of general physics were supplied 2300 years ago by the Athenian orator Demosthenes when he cried out on one occasion: “In the name of the gods, I beg you to think!”

Thinking was something that was badly lacking until about the year 1800 in this field and is still lacking in some quarters even now. Philosophers used to speculate about the nature of coldness and of heat, completely failing to realize that “cold” was merely the absence of heat, as darkness is nothing but the absence of light. Even in circles of the early physicists a very strange idea was used in all seriousness.

Presumably paralleling the idea of the *phlogiston* of the early chemists, physicists assumed that heat was a kind of substance which could pervade

bodies. It received the technical name of *caloric*, and if one body was found to be warmer than another body this fact was "explained" by saying that it contained more *caloric*. Nobody seems to have noticed that this was no explanation at all but merely the substitution of another word. But the explanation was made to fit, no matter what. Every miller knew, for example, that millstones which, by carelessness, had been allowed to run "empty" for some time would grow quite hot. Where did the additional *caloric* come from? Well, it was assumed that the same substance would hold more or less *caloric* depending on its size. A complete millstone could hold a great deal, but the powder abraded from a millstone could hold very little. Hence the *caloric* which had been in the abraded powder when it was still part of the millstone was freed, heating the surroundings.

Benjamin Thompson's Experiment

The first one not to believe this explanation was Benjamin Thompson, who later became Count Rumford. He observed how cannon were bored and how the metal grew so hot it had to be constantly cooled. He watched one tool bore a hole efficiently, removing a good deal of metal and producing a great deal of *caloric*. He had another cannon barrel bored with a blunt tool. The amount of material removed was very little but the amount of *caloric* released was the same. Thompson concluded that the heat was in proportion to the amount of mechanical work expended.

Sir Humphrey Davy followed up this experiment by rubbing blocks of ice together, producing water—and it had been a tenet all along that water could hold more *caloric* than could ice. These two experiments killed the idea that heat was a "substance" in its own right and physicists were forced to accept the thought that heat was just a form of energy.

If so, how did this energy make ice, or a metal, melt? Why did it cause a gas in a closed vessel to exert pressure when the same gas had not shown any pressure before it was heated? A new word, "molecule," was invented by the Italian researcher Count Amadeo Avogadro around the year 1820. Avogadro, for various reasons, had arrived at the conclusion that the particles of a gas, for example, could not be the atoms but had to be slightly larger units, consisting of two or more atoms. He suggested the name "molecule" ("small bundle") and, still speaking of gases, assumed them to be in rapid motion. If energy in the form of heat were added the motion of the molecules would increase and this increased motion would show itself as a rise in pressure.

Soon this reasoning could be extended. If you had ice, containing only a little heat, the molecules obviously did not move fast and the substance was a solid which kept its shape and also its volume (within narrow limits). If you added more heat so that the ice melted into water the molecules moved faster. The substance still had a given volume (within narrow limits, depending on its temperature) but would adopt any shape. If you added still more heat the water would evaporate into water vapor, its molecules moving still faster. In the form of vapor the substance had neither a given shape nor a given volume but would try to occupy whatever space was available.

With this perfectly correct reasoning available the physicists still thought that they had to provide an exception, even if the reason for the exception could not be explained. True, you could melt ice into water and change the liquid into vapor. You could do the same with a number of other substances. But you had to realize that a distinction had to be made between vapors and gases. Mercury vapor could be condensed into liquid mercury which would freeze solid if it was cold enough. But this was a vapor. You could not do this with a gas. Oxygen, for example, could not be condensed into a liquid. The same was true of nitrogen, hydrogen, and carbon dioxide. These were "permanent gases" which could not be changed into another state.

But there was still an exception to the exception. The gases which were elements, like oxygen, nitrogen, and hydrogen, could not be changed at all. The gases which were not elements, like the carbon dioxide mentioned and others like it, for example sulphur dioxide, could be liquefied under high pressure, but only under pressure.

Nowadays, with frozen carbon dioxide something you can buy in many places under the name of dry ice and with tank cars holding thousands of gallons of liquid oxygen driving up to the launching pads of the large ballistic rockets, this hundred-year-old assertion sounds as wrong as it actually was. The whole idea of the "permanent gases" had originated with nothing more serious than a then missing skill; they could not produce sufficiently low temperatures to liquefy them. In the special case of carbon dioxide it is true that the gas will be a liquid only under pressure; under normal pressure it skips the liquid stage if cold enough and does the same when warmed—hence "dry" ice.

Absolute Zero

When Amadeo Avogadro advocated his idea of the "little bundle," the molecule, several things were already known. The thermometer had already been invented—unfortunately with three different scales, one by Gabriel Daniel Fahrenheit, one by René Antoine de Réaumur, and one by Anders Celsius, the latter commonly called the centigrade scale—and the French chemist Jacques Alexandre César Charles had found that a gas expanded at a very regular rate when heated and shrank with equal regularity if it lost its heat.

Charles had also measured the shrinkage. If you began at the freezing point of water and cooled the gas by one of Mr. Celsius' degrees, its volume shrank by $1/273$ of whatever it had been before the cooling took place. Cooling the gas by another degree resulted in another $1/273$ shrinkage. The fact itself was easy enough to understand; the molecules moved more slowly, hence the pressure was less, hence the gas occupied less volume. But what would happen if this went on? Simple logic was forced to conclude that at 273 degrees centigrade below the freezing point of water the gas should have zero volume. Simple logic answered that it could not just disappear.

The truth is, of course, that the gas does continue to lose volume at that rate (if the external pressure is constant) but only as long as it is a gas. As soon as the liquid state is reached things change; a liquid behaves differently.

As we keep removing heat the liquid becomes a solid, all of which means that the motion of the molecules grows less and less. At one point the molecules should stop moving altogether. Then *all* the heat has been removed from the substance; absolute zero has been reached.

On the centigrade scale this is minus 273.2 degrees; on the Fahrenheit scale it is minus 459.8 degrees. Absolute zero has been approached in the laboratory to within 1/10th of one degree.

For the sake of simplicity—and to get rid of negative temperatures which often are confusing—Lord Kelvin proposed to start counting from absolute zero (in degrees centigrade) and this “Kelvin scale” is now in general use among scientists. The freezing point of water, therefore, can be accurately expressed by saying: 1) 32° Fahrenheit, 2) 0° centigrade, or Celsius, or 3) 273.2° K. for Kelvin. The temperature of the surface of our sun, then, is 6000° C., or 10,800° F., or 6273 K. It can be seen that the difference between centigrade and K. becomes rather unimportant if the temperatures are high enough. While there is the easily definable lower limit (no molecular motion) there is no upper limit to temperatures.

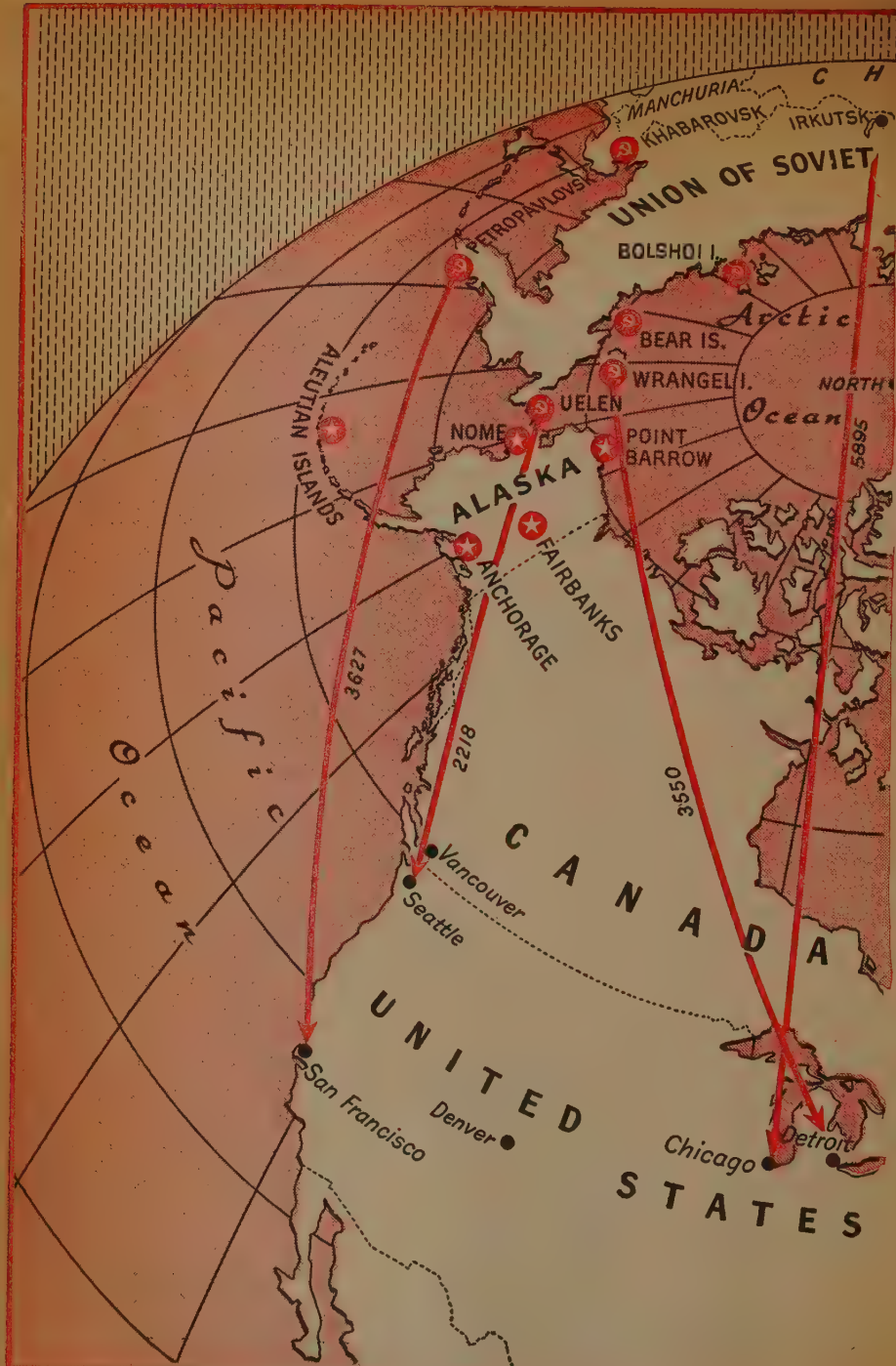
Heat Engines

An invention does not always depend on proper understanding of what is going on. Sometimes you can make something work first and figure out later why it does. The steam engine is a case in point. It was invented and put to use when physicists were still wondering why *caloric* behaves the way it does. But with the proper theory, namely that heat is a form of energy which produces molecular motion, heat engines are easy to understand.

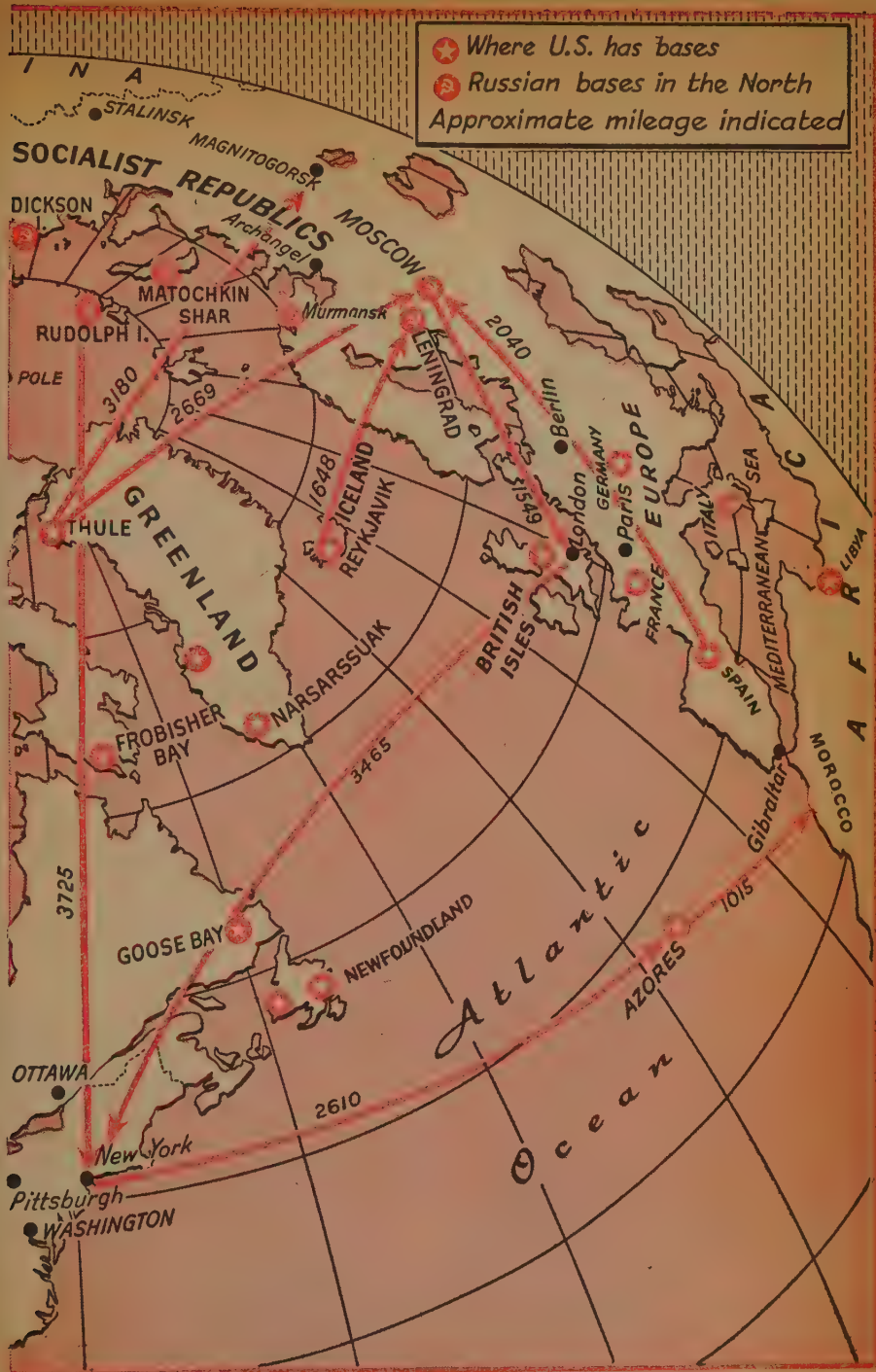
Boil water into steam and the very energetic molecules of the water vapor will push a piston in the cylinder or turn a turbine wheel. Similarly, if you ignite a combustible gas in an enclosed space the molecules of the combustion products (plus such air molecules as happen to be trapped in that enclosed space) will become very energetic and also push a piston or drive a turbine wheel. Or burn a fuel with the necessary oxygen and the resulting fast-moving molecules will produce an exhaust that will lift a hundred-ton rocket.

This also makes it clear why an atomic reactor will not do anything by itself. It can produce almost any amount of energy (heat, that is), but if you want it to do some work you have to supply an additional substance the molecules of which can be speeded up. In the atomic-powered submarine a liquid metal is heated first which, in turn, boils water into steam and the steam does the work. (The reason for the intermediate cycle of the liquid metal is engineering convenience.) In the atomic-powered rocket that is now being developed—but is estimated to take some ten years of development work—hydrogen gas is going to be fed into the reactor so that the heat of the reactor will have molecules to speed up.

In some of these cases the engineering problems are quite difficult, because you often would like to run a part at a temperature above its own melting point, but the principle is always the same. Heat will speed up the molecules of some convenient substance and the speeding molecules will do the work by producing pressure.



★ Where U.S. has bases
 Ⓜ Russian bases in the North
 Approximate mileage indicated





CENTRAL AMERICA AND THE WEST INDIES

● Capitals

0 Miles 1000

Atlantic Ocean









FAR EAST AND PACIFIC










EUROPE AND THE NEAR EAST

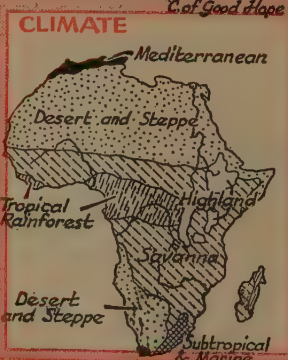
-  Communist bloc
-  Capital cities







 Airbases (Bn. U.S.-Turk.)
 Oil Fields
 Oil Pipelines





SCIENCE



MEASURES AND WEIGHTS

UNITS OF LENGTH

Metric System

The meter was originally intended to be one ten-millionth of the earth's quadrant, a quadrant being one-quarter of a circumference. However, because of the difficulty of determining such a length with accuracy, this definition was abandoned. The meter is now considered to be the distance at 0°C between two microscopic marks on the International Prototype Meter, a platinum-iridium bar, kept by the International Bureau of Weights and Measures at Sèvres, France, a suburb of Paris.

In 1927, the International Conference on Weights and Measures adopted a secondary definition of the meter in terms of light-waves. According to this definition, one meter is equivalent to 1,553,164.13 wave lengths of the red light from cadmium.

Unit	Comparison	English equivalent
Millimeter (mm)	.001 meter	.0394 inch
Centimeter (cm)	.01 meter	.3937 inch
Decimeter (dm)	.1 meter	3.937 inches
Meter (m)		3.2808 feet
Dekameter (dkm)	10 meters	32.8083 feet
Hectometer (hm)	100 meters	328.0833 feet
Kilometer (km)	1000 meters	.62137 mile

English System

According to legend, the yard was established by Henry I as the distance from the point of his nose to the end of his thumb when his arm was outstretched. The British Imperial Yard was defined in 1878 by the Weights and Measures Act as the distance at 62°F between two fine lines on gold studs sunk in a bronze bar known as the "No. 1 Standard Yard." This is equivalent to .914399 meter. In the United States, the yard is defined in terms of the meter, using as a standard the U. S. Prototype Meter. According to this definition, the yard is 3600/3937 (or .914402) meter, slightly longer than the British Imperial Yard.

Unit	Comparison	Metric equivalent
Inch (in.)		25.4001 millimeters
Foot (ft)	12 inches	.3048 meter
Yard (yd)	36 inches	.9144 meter
	3 feet	
Rod (rd)	16½ feet	5.0292 meters
	5½ yards	
Furlong (fur.)	660 feet	201.1684 meters
	220 yards	
	40 rods	
Mile (mi)*	5280 feet	1.6093 kilometers
	1760 yards	
	320 rods	
	8 furlongs	

* Known as statute mile. See nautical mile under Miscellaneous Units.

UNITS OF AREA

Metric System

Unit	Comparison	English equivalent
Square millimeter (mm²)	.000001 m²	.0015 sq in.
Square centimeter (cm²)	.0001 m²	.155 sq in.
Square decimeter (dm²)	.01 m²	15.5 sq in.
Square meter (m²)*		10.7639 sq ft
Square dekameter (dkm²)†	100 m²	3.9537 sq rd
Square hectometer (hm²)‡	10,000 m²	2.471 acres
Square kilometer (km²)	1,000,000 m²	.3861 sq mi

* Also known as a centare (ca).

† Also known as an are (a).

‡ Also known as a hectare (ha).

English System

Unit	Comparison	Metric equivalent
Square inch (sq in.)		6.4516 cm²
Square foot (sq ft)	144 sq in.	.0929 m²
Square yard (sq yd)	1296 sq in.	.8361 m²
	9 sq ft	
Square rod (sq rd)	272¼ sq ft	25.293 m²
	30¼ sq yds	
Acre	43,560 sq ft	.4047 ha
	4,840 sq yd	
	160 sq rd	
Square mile (sq mi)	27,878,400 sq ft	2.5900 km²
	3,097,600 sq yd	
	102,400 sq rd	
	640 acres	

UNITS OF VOLUME

Metric System

Unit	Comparison	English equivalent
Cubic millimeter (mm³)	.000000001 m³	.00006 cu in.
Cubic centimeter (cm³)	.000001 m³	.061 cu in.
Cubic decimeter (dm³)	.001 m³	61.0234 cu in.
Cubic meter (m³)*		35.3145 cu ft

* Also known as a stere (s).

English System

Unit	Comparison	Metric equivalent
Cubic inch (cu in.)		16.3872 cm³
Cubic foot (cu ft)	1728 cu in.	.0283 m³
Cubic yard (cu yd)	46,656 cu in.	.7646 m³
	27 cu ft	
Cord (cd)	128 cu ft	3.6246 m³

UNITS OF WEIGHT OR MASS

The term *mass* denotes the amount of matter contained in an object, while the term *weight* denotes the gravitational pull of the earth on the object. For practical purposes, the two terms are synonymous.

Metric System

The gram was originally intended to be equal to the mass of one cubic centimeter of pure water at 4°C. However, because of

the difficulty of making exact measurement, a small error was made; and it has since been found that a kilogram of pure water occupies 1.000028 cubic decimeters. The standard for the kilogram is a platinum-iridium cylinder, called the International Prototype Kilogram, which is kept at the International Bureau of Weights and Measures in France.

Unit	Comparison	Avdp.	English equivalents Troy	Apoth:
Milligram (mg)	.001 gram	.0154 grain	.0154 grain	.0154 grain
Centigram (cg)	.01 gram	.1543 grain	.1543 grain	.1543 grain
Decigram (dg)	.1 gram	1.5432 grains	1.5432 grains	1.5432 grains
Gram (g)		.0353 ounce	.0322 ounce	.0322 ounce
Dekagram (dkg)	10 grams	.3527 ounce	.3215 ounce	.3215 ounce
Hectogram (hg)	100 grams	3.5274 ounces	3.2151 ounces	3.2151 ounces
Kilogram (kg)	1000 grams	2.2046 pounds	2.6792 pounds	2.6792 pounds
Metric ton (t)	1000 kg	1.1023 tons *		

* Short tons. A metric ton is equivalent to .9842 long ton.

English System

The English System is complicated by the existence of three different kinds of weight: *avoirdupois weight*, used for common purposes; *troy weight*, used for weighing gold, silver, etc.; and *apothecaries weight*, used for making up medical prescriptions.

The British Imperial Pound (avoirdupois) is defined as the mass of a pure plat-

inum cylinder kept by the Standards Department of the Board of Trade. In the United States, the pound (avoirdupois) is defined in terms of the kilogram, using as a standard the U. S. Prototype Kilogram. According to this definition, the pound is equal to .4535924277 kilogram, making it infinitesimally smaller than the British Imperial Pound.

Avoirdupois Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Dram (dr avdp)	27.3438 grains	1.7718 grams
Ounce (oz avdp)	16 drams	28.3495 grams
	437.5 grains	
Pound (lb avdp)	7000 grains	4536 kilogram
	256 drams	
	16 ounces	
Hundredweight (cwt)*	100 pounds	45.3592 kilograms
Ton (tn)†	2000 pounds	.9072 metric ton

* Known as the short hundredweight, which is in use in the United States and Canada. Great Britain uses the long hundredweight (112 lb or 50.8024 kg).

† Known as the short ton, which is in use in the United States and Canada. Great Britain uses the long ton (2240 lb or 1.01605 metric tons).

Troy Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Pennyweight (dwt)	24 grains	1.5552 grams
Ounce (oz t)	480 grains	31.1035 grams
	20 pennyweights	
Pound (lb t)*	5760 grains	.3732 kilogram
	240 pennyweights	
	12 ounces	

* Declared illegal in Great Britain.

Apothecaries Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Scruple (s ap or ℥)	20 grains	1.296 grams
Dram (dr ap or ℥)	60 grains	3.8879 grams
	3 scruples	
Ounce (oz ap or ℥)	480 grains	31.1035 grams
	24 scruples	
	8 drams	
Pound (lb ap)	5760 grains	.3732 kilogram
	288 scruples	
	96 drams	
	12 ounces	

UNITS OF CAPACITY

Metric System

The liter is a secondary unit of capacity defined as the volume occupied by one kilogram of pure water at 4°C. It was intended that the liter should exactly equal one cubic decimeter, but as an error was made in measurement, has since been found to equal 1.000028 cubic decimeters.

Unit	Comparison	English equivalents Liquid	Dry
Milliliter (ml)	.001 liter	.0338 fl oz	.0018 pt
Centiliter (cl)	.01 liter	.3381 fl oz	.0182 pt
Deciliter (dl)	.1 liter	3.3815 fl oz	.1816 pt
Liter (l)		1.0567 qt	.9081 qt
Dekaliter (dkl)	10 liters	2.6418 gal	1.1351 pk
Hectoliter (hl)	100 liters	26.4178 gal	2.8378 bu

English System

In Great Britain, the standard unit of capacity for measuring both liquid and dry commodities is the British Imperial Gallon. It is defined as the volume of ten pounds of pure water at 62°F and contains 277.418 cubic inches. The bushel is defined as eight gallons (2218.192 cubic inches).

In the United States, there are two separate standards. The unit for measuring liquids is the gallon, which is defined as 231 cubic inches; the unit for measuring dry commodities is the bushel, which is defined as 2150.42 cubic inches.

UNITS OF CIRCULAR MEASURE

Unit	Comparison
Second (")	
Minute (')	60 seconds
Degree (°)	60 minutes
Right angle	90 degrees
Straight angle	180 degrees
Circle	360 degrees

COMMON FORMULAS

Circumference

Circle: $C = \pi d$, in which π is 3.1416 and d the diameter.

Area

Triangle: $A = \frac{ab}{2}$, in which a is the base and b the height.

Square: $A = a^2$, in which a is one of the sides.

Rectangle: $A = ab$, in which a is the base and b the height.

Trapezoid: $A = \frac{h(a+b)}{2}$, in which h is the height, a the longer parallel side, and b the shorter.

Regular pentagon: $A = 1.720a^2$, in which a is one of the sides.

Regular hexagon: $A = 2.598a^2$, in which a is one of the sides.

Regular octagon: $A = 4.828a^2$, in which a is one of the sides.

Circle: $A = \pi r^2$, in which π is 3.1416 and r the radius.

Volume

Cube: $V = a^3$, in which a is one of the edges.

Rectangular prism: $V = abc$, in which a is the length, b the width, and c the depth.

Pyramid: $V = \frac{Ah}{3}$, in which A is the area of the base and h the height.

Liquid Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Minim (min or m)*		.0038	.0616 ml
Fluid dram (fl dr)	60 min	.2256	3.6966 ml
Fluid ounce (fl oz)	8 fl dr	1.8047	29.5729 ml
Gill (gi)	32 fl dr	7.2188	118.292 ml
	4 fl oz		
Pint (pt)	16 fl oz	28.875	.4732 liter
	4 gi		
Quart (qt)	32 fl oz	57.75	.9463 liter
	8 gi		
	2 pt		
Gallon (gal)	32 gi	231	3.7853 liters
	8 pt		
	4 qt		

* Approximately one drop.

Dry Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Pint (pt)		33.6003	.5506 liter
Quart (qt)	2 pints	67.2006	1.1012 liters
Peck (pk)	16 pints	537.605	8.8096 liters
	8 quarts		
Bushel (bu)	64 pints	2150.42	35.2383 liters
	32 quarts		
	4 pecks		

Cylinder: $V = \pi r^2 h$, in which π is 3.1416, r the radius of the base, and h the height.

Cone: $V = \frac{\pi r^2 h}{3}$, in which π is 3.1416, r the radius of the base, and h the height.

Sphere: $V = \frac{4\pi r^3}{3}$, in which π is 3.1416 and r the radius.

Miscellaneous

Speed per second acquired by falling body: $v = 32t$, in which t is the time in seconds.

Distance in feet traveled by falling body: $d = 16t^2$, in which t is the time in seconds.

Speed of sound in feet per second through any given temperature of air:

$V = \frac{1087\sqrt{273+t}}{16.52}$, in which t is the temperature Centigrade.

Cost per hour of operation of electrical device: $C = \frac{Wtc}{1000}$, in which W is the number of watts, t the time in hours, and c the cost per kilowatt-hour.

Conversion of matter into energy (Einstein's Theorem): $E = mc^2$, in which E is the energy in ergs, m the mass of the matter in grams, and c the speed of light in centimeters per second. ($c^2 = 9 \cdot 10^{20}$).

Abbreviations

The National Bureau of Standards recommends that the period be omitted after all abbreviations of units unless the

abbreviation forms an English word, and that the same abbreviation be used for both singular and plural.

FAHRENHEIT AND CENTIGRADE SCALES

Zero on the Fahrenheit scale represents the temperature produced by the mixing of equal weights of snow and common salt.

Absolute zero is theoretically the lowest possible temperature, the point at which all molecular motion would cease.

	F	C	
Bolling point of water	212°	100°	To convert Fahrenheit to Centigrade, subtract 32 and multiply by 5/9.
Freezing point of water	32°	0°	
Absolute zero	-459.6°	-273.1°	To convert Centigrade to Fahrenheit, multiply by 9/5 and add 32.

ROMAN NUMERALS

Roman numerals are expressed by letters of the alphabet and are rarely used today except for formality or variety.

There are three basic principles for reading Roman numerals:

1. A letter repeated once or twice repeats its value that many times. (XXX=30, CC=200, etc.).

2. One or more letters placed after another letter of greater value increases the greater value by the amount of the smaller. (VI=6, LXX=70, MCC=1200, etc.).

3. A letter placed before another letter of greater value decreases the greater value by the amount of the smaller. (IV=4, XC=90, CM=900, etc.).

Letter	Value	Letter	Value
I	1	LX	60
II	2	LXX	70
III	3	LXXX	80
IV	4	XC	90
V	5	C	100
VI	6	D	500
VII	7	M	1,000
VIII	8	V	5,000
IX	9	X	10,000
X	10	L	50,000
XX	20	C	100,000
XXX	30	D	500,000
XL	40	M	1,000,000
L	50		

SIMPLE INTEREST FOR \$100

To find the interest for any amount of money, move the decimal point of that amount two places to the left and multiply by the figure obtained from the table.

For figuring simple interest, the year is considered to have 360 days.

	1 Day	7 Days	1 Month	3 Months	6 Months	1 Year
2%	\$.00556	\$.03889	\$.16667	\$.50000	\$1.00000	\$2.00000
2½%	.00694	.04861	.20833	.62500	1.25000	2.50000
3%	.00833	.05833	.25000	.75000	1.50000	3.00000
3½%	.00972	.06806	.29167	.87500	1.75000	3.50000
4%	.01111	.07778	.33333	1.00000	2.00000	4.00000
4½%	.01250	.08750	.37500	1.12500	2.25000	4.50000
5%	.01389	.09722	.41667	1.25000	2.50000	5.00000
5½%	.01528	.10694	.45833	1.37500	2.75000	5.50000
6%	.01667	.11667	.50000	1.50000	3.00000	6.00000
6½%	.01806	.12639	.54167	1.62500	3.25000	6.50000
7%	.01944	.13611	.58333	1.75000	3.50000	7.00000
8%	.02222	.15556	.66667	2.00000	4.00000	8.00000
9%	.02500	.17500	.75000	2.25000	4.50000	9.00000
10%	.02778	.19444	.83333	2.50000	5.00000	10.00000

MISCELLANEOUS UNITS

AGATE: Originally a measurement of type size (5½ points). Now equal to 1/14 inch. Used in printing for measuring column length.

ANGSTROM (A or λ): .0001 micron or .0000001 mm. Used for measuring length of light waves.

ASTRONOMICAL UNIT (A.U.): 93,003,000 miles, the average distance of the earth from the sun. Used in astronomy.

BALE: A large bundle of goods. In the U. S., the approximate weight of a bale of cotton is 500 pounds. The weight varies in other countries.

- BARREL (bbl):** For liquids, 31½ gallons or 732.6 cubic inches. For dry commodities, except cranberries: 105 dry quarts or 705.6 cubic inches. For cranberries: 582.6 cubic inches.
- BOARD FOOT (fbm):** 144 cubic inches (12 in. x 12 in. x 1 in.). Used for lumber.
- BOLT:** 40 yards. Used for measuring cloth.
- CABLE:** About 100 fathoms or 600 feet. Used for measuring lengths of cable.
- CARAT (c):** 200 milligrams or 3.086 grains troy. Originally the weight of a seed of the carob tree in the Mediterranean region. Used for weighing precious stones. Also a measure of the purity of gold alloy, indicating how many parts out of 24 are pure. Eighteen carat gold, for example, is ¾ pure.
- CHAIN (ch):** a chain 66 feet or one-tenth of a furlong in length, divided into 100 parts called links. One mile is equal to 80 chains. Used in surveying and sometimes called Gunter's chain.
- CUBIT:** 18 inches or 45.72 cm. Derived from distance between elbow and tip of middle finger.
- ELL, ENGLISH:** 1¼ yards or 1/32 bolt. Used for measuring cloth.
- FATHOM (fath):** 6 feet or 1.8288 m. Derived from the distance to which a man can stretch his arms. Used for measuring cables and depths of water.
- FREIGHT TON (also called MEASUREMENT TON):** 40 cubic feet of merchandise. Used for cargo freight.
- GREAT GROSS:** 12 gross or 1728.
- GROSS:** 12 dozen or 144.
- HAND:** 4 inches or 10.16 cm. Derived from the width of the hand. Used for measuring the height of horses at withers.
- HOGSHEAD (hhd):** 2 liquid barrels or 14.653 cubic inches.
- HORSEPOWER:** The power needed to lift 33,000 pounds a distance of one foot in one minute (about 1½ times the power an average horse can exert). Used for measuring the power of steam engines, etc.
- KNOT:** Not a distance, but the rate of speed of one nautical mile per hour. Used for measuring speed of ships.
- LEAGUE:** Rather indefinite and varying measure, but usually estimated at 3 miles in English-speaking countries.
- LIGHT-YEAR:** 5,880,000,000,000 miles, the distance light travels in a year at the rate of 186,272 miles per second. (If an astronomical unit were represented by one inch, a light-year would be represented by about one mile.) Used for measurements in interstellar space.
- LINK:** One-hundredth of a chain or 7.92 inches. Used in surveying.
- MAGNUM:** Two-quart bottle. Used for measuring wine, etc.
- MICRON (μ):** .001 millimeter. Used for scientific measurements.
- MIL:** .001 inch. Used for measuring size of wire. The area of a cross-section of wire is usually expressed in circular mils, a circular mil being the area of a circle one mil in diameter. A wire one inch in diameter has a cross-section area of one million circular mils.
- MILLIMICRON (mμ):** .001 micron or .000001 mm. Used for scientific measurements.
- NAUTICAL MILE (also called GEOGRAPHICAL or SEA MILE):** Equal to a minute or 1/21600 of a great circle of the earth. Length varies in different countries. In Great Britain, it is 6080 feet or 1853.2 meters, and in the United States, it is 6080.2 feet or 1853.248 meters. The International Hydrographic Bureau proposed in 1929 a length of 1852 meters or 6076.097 feet, which has been adopted by several countries.
- PARSEC:** Approximately 3.26 light-years or 19.2 trillion miles. Term is combination of first syllables of *parallax* and *second*, and distance is that of imaginary star when lines drawn from it to both earth and sun form a maximum angle or parallax of one second (1/3600 degree). Used for measuring interstellar distances.
- PI (π):** 3.14159265+. The ratio of the circumference of a circle to its diameter. For practical purpose, the value is used to four decimal places: 3.1416.
- PICA:** ⅙ inch or 12 points. Used in printing for measuring column width, etc.
- PIPE:** 2 hogsheads. Used for measuring wine and other liquids.
- POINT:** .013837 (approximately 1/72) inch or 1/12 pica. Used in printing for measuring type size.
- QUINTAL:** 100,000 grams or 220.46 pounds avoirdupois.
- QUIRE:** Used for measuring paper. Sometimes 24 sheets but more often 25. There are 20 quires in a ream.
- REAM:** Used for measuring paper. Sometimes 480 sheets, but more often 500 sheets.
- SCORE:** 20 units.
- SPAN:** 9 inches or 22.86 cm. Derived from the distance between the end of the thumb and the end of the little finger when both are outstretched.
- STONE:** Legally 14 pounds avoirdupois in Great Britain.
- TOWNSHIP:** U. S. land measurement of almost 36 square miles. The south border is 6 miles long. The east and west borders, also 6 miles long, follow the meridians, making the north border slightly less than six miles long. Used in surveying.
- TUN:** 252 gallons, but often larger. Used for measuring wine and other liquids.

DECIMAL EQUIVALENTS OF COMMON FRACTIONS

$\frac{1}{2}$	.5000	$\frac{1}{2}$	.0313	$\frac{3}{4}$	.2727	$\frac{6}{7}$	.5455
$\frac{1}{3}$	.3333	$\frac{1}{6}$	.0156	$\frac{4}{5}$	.8000	$\frac{7}{8}$	.8750
$\frac{1}{4}$	.2500	$\frac{2}{3}$	.6667	$\frac{4}{7}$	.5714	$\frac{7}{9}$	.7778
$\frac{1}{5}$	.2000	$\frac{2}{5}$	.4000	$\frac{4}{9}$	.4444	$\frac{7}{10}$	.7000
$\frac{1}{6}$	.1667	$\frac{2}{7}$	.2857	$\frac{4}{11}$	.3636	$\frac{7}{11}$	.6364
$\frac{1}{7}$	.1429	$\frac{2}{9}$	.2222	$\frac{5}{6}$	.8333	$\frac{7}{12}$	.5833
$\frac{1}{8}$	.1250	$\frac{2}{11}$	.1818	$\frac{5}{7}$	.7143	$\frac{8}{9}$	.8889
$\frac{1}{9}$	.1111	$\frac{3}{4}$	.7500	$\frac{5}{8}$	.6250	$\frac{8}{11}$	.7273
$\frac{1}{10}$	.1000	$\frac{3}{5}$	.6000	$\frac{5}{9}$	.5556	$\frac{9}{10}$	.9000
$\frac{1}{11}$	.0909	$\frac{3}{7}$	.4286	$\frac{5}{11}$	.4545	$\frac{9}{11}$	.8182
$\frac{1}{12}$	.0833	$\frac{3}{8}$	.3750	$\frac{5}{12}$	.4167	$\frac{10}{11}$	.9091
$\frac{1}{16}$	.0625	$\frac{3}{10}$	.3000	$\frac{6}{7}$	.8571	$\frac{11}{12}$	.9167

Handy Conversion Factors

To change	To	Multiply by
acres	hectares	.4047
bushels (U. S.)	hectoliters	.3524
centimeters	inches	.3937
cubic feet	cubic meters	.0283
cubic meters	cubic feet	35.3145
cubic meters	cubic yards	1.3079
cubic yards	cubic meters	.7646
feet	meters	.3048
gallons (U. S.)	liters	3.7853
grains	grams	.0648
grams	grains	15.4324
grams	ounces avdp.	.0353
hectares	acres	2.4710
hectoliters	bushels (U. S.)	2.8378
inches	millimeters	25.4001
inches	centimeters	2.5400
kilograms	pounds ap or t	2.6792
kilograms	pounds avdp.	2.2046
kilometers	miles	.6214
liters	gallons (U. S.)	.2642
liters	pecks	.1135
liters	pints (dry)	1.8162
liters	pints (liquid)	2.1134
liters	quarts (dry)	.9081
liters	quarts (liquid)	1.0567
meters	feet	3.2808
meters	yards	1.0936
metric tons	tons (long)	.9842
metric tons	tons (short)	1.1023
miles	kilometers	1.6093
millimeters	inches	.0394
ounces avdp.	grams	28.3495
pecks	liters	8.8096
pints (dry)	liters	.5506
pints (liquid)	liters	.4732
pounds ap or t	kilograms	.3732
pounds avdp.	kilograms	.4536
quarts (dry)	liters	1.1012
quarts (liquid)	liters	.9463
square feet	square meters	.0929
square meters	square feet	10.7639
square meters	square yards	1.1960
square yards	square meters	.8361
tons (long)	metric tons	1.0160
tons (short)	metric tons	.9072
yards	meters	.9144

Perfect Squares and Cubes, 1 to 2025

Number	Square root	Cube root	Number	Square root	Cube root
1	1	1	512		8
4	2		529	23	..
8		2	576	24	..
9	3		625	25	..
16	4		676	26	..
25	5		729	27	9
27		3	784	28	..
36	6		841	29	..
49	7		900	30	..
64	8	4	961	31	..
81	9		1000		10
100	10		1024	32	..
121	11		1089	33	..
125		5	1156	34	..
144	12		1225	35	..
169	13		1296	36	..
196	14		1331		11
216		6	1369	37	..
225	15		1444	38	..
256	16		1521	39	..
289	17		1600	40	..
324	18		1681	41	..
343		7	1728		12
361	19		1764	42	..
400	20		1849	43	..
441	21		1936	44	..
484	22		2025	45	..

Mean and Median

The mean, also called the average, of a series of quantities is obtained by finding the sum of the quantities and dividing it by the number of quantities. In the series 1,3,5,18,19,20,25, the mean or average is 13 —i.e., 91 divided by 7.

The median of a series is that point which so divides it that half the quantities are on one side, half on the other. In the above series, the median is 18.

The median often better expresses the common-run, since it is not, as is the mean, affected by an excessively high or low figure. In the series 1,3,4,7,55, the median of 4 is a truer expression of the common-run than is the mean of 14.

Chemical Elements

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence	Number of isotopes	Discoverer	Date discovered
1	Hydrogen	H	1.0080	0.07†	-259.14	-252.7	1	3	Cavendish	1766
2	Helium	He	4.003	0.15†	<-272.2	-268.9	0	4	Ramsay	1895
3	Lithium	Li	6.940	0.534	186.	>1200.	1	5	Arfvedson	1817
4	Beryllium	Be	9.013	1.84	1350.	1500.	2	4	Vauquelin	1798
5	Boron	B	10.82	2.535§	2300.	2500.	3	5	Gay-Lussac and Thénard; Davy	1808
6	Carbon	C	12.011	2.25**	>3500.	4200.	2, 3 or 4	6	Prehistoric	....
7	Nitrogen	N	14.008	0.810†	-209.86	-195.3	3 or 5	6	Rutherford	1772
8	Oxygen	O	16.0000	1.14†	-218.4	-183.00	2	6	Priestley	1774
9	Fluorine	F	19.00	1.14†	-223.	-187.	1	4	Moissan	1886
10	Neon	Ne	20.183	0.90035 (g/10°C. 760mm)	-248.67	-245.9	0	5	Ramsay and Travers	1898
11	Sodium	Na	22.991	0.9287†	97.5	880.	1	6	Davy	1807
12	Magnesium	Mg	24.32	1.741	651.	1110.	2	6	Davy	1808
13	Aluminum	Al	26.98	2.699†	660.0	1800.	3	6	Wöhler	1827
14	Silicon	Si	28.09	2.42**	1420.	2600.	4	6	Berzelius	1824
15	Phosphorus	P	30.975	1.83 (white)	44.1	280.	3 or 5	6	Brand	1669
16	Sulfur	S	32.066	2.0-1	112.8	444.6	2, 4 or 6	7	Prehistoric	....
17	Chlorine	Cl	35.457	1.507†	-101.6	-34.6	1, 3, 5 or 7	7	Scheele	1774
18	Argon	A	39.944	1.423†	-189.2	-185.7	0	8	Rayleigh and Ramsay	1894
19	Potassium	K	39.100	0.87	62.3	760.	1	8	Davy	1807
20	Calcium	Ca	40.08	1.54	810.	1170.	2	10	Davy	1808
21	Scandium	Sc	44.96	3.62 (10°C.)	1200.	2400.	3	8	Nilson	1879
22	Titanium	Ti	47.90	4.5	1800.	>3000.	3 or 4	8	Gregor	1791
23	Vanadium	V	50.95	5.69	1710.	3000.	2, 3, 4 or 5	8	Sefström	1830
24	Chromium	Cr	52.01	6.92	1615.	2200.	2, 3 or 6	8	Vauquelin	1798
25	Manganese	Mn	54.94	7.42	1260.	1900.	2, 3, 4, 6 or 7	6	Gahn	1774
26	Iron	Fe	55.85	7.85-88	1535.	3000.	2, 3 or 6	8	Prehistoric	....
27	Cobalt	Co	58.94	8.9	1480.	2900.	2 or 3	9	Brandt	1735
28	Nickel	Ni	58.71	8.60-90	1452.	2900.	2 or 3	11	Cronstedt	1751
29	Copper	Cu	63.54	8.30-95	1083.	2300.	1 or 2	10	Prehistoric	....
30	Zinc	Zn	65.38	7.04-16	419.43	907.	2	12	Identified by Marggraf	1746
31	Gallium	Ga	69.72	5.903	29.75	>1600.	2 or 3	11	Boisbaudran	1875
32	Germanium	Ge	72.60	5.46	958.5	2700.	4	13	Winkler	1886
33	Arsenic	As	74.91	5.73	814.	615.	3 or 5	11	Albertus Magnus	1250§
34	Selenium	Se	78.96	4.3-8	220.	688.	2, 4 or 6	14	Berzelius	1818
35	Bromine	Br	79.916	3.12†	-7.2	58.78	1, 3, 5 or 7	15	Balard	1826
36	Krypton	Kr	83.80	2.16†	-169.	-151.8	0	19	Ramsay and Travers	1898
37	Rubidium	Rb	85.48	1.532	38.5	700.	1	16	Bunsen and Kirchhoff	1861
38	Strontium	Sr	87.63	2.50-58	800.	1150.	2	16	Davy	1808
39	Yttrium	Y	88.92	3.80	1490.	2500.	3	15	Gadolín	1794
40	Zirconium	Zr	91.22	6.44	1700.	>2900.	4	12	Klaproth	1789
41	Niobium*** (Columbium)	Nb	92.91	8.4	1950.	>3300.	3 or 5	10	Hatchett	1801
42	Molybdenum	Mo	95.95	9.01	2620±10	3700.	2, 3, 4, 5 or 6	13	Hjelm	1781
43	Technetium	Tc	99.*	11.487	2300.	.....	2, 3, 4 or 6	12††	Perrier and Segrè	1937
44	Ruthenium	Ru	101.1	12.06	2450.	>2700.	3, 4, 6 or 8	13	Klaus	1844
45	Rhodium	Rh	102.91	12.44	1955.	>2500.	3	10	Wollaston	1803
46	Palladium	Pd	106.4	12.16 (20°C.)	1555.	2200.	2 or 4	13	Wollaston	1803
47	Silver	Ag	107.880	10.503††	960.5	1950.	1	13	Prehistoric	....
48	Cadmium	Cd	112.41	8.648	320.9	767.	2	14	Stromeyer	1817
49	Indium	In	114.82	7.28	155.	1450.	1 or 3	13	Reich and Richter	1863
50	Tin	Sn	118.70	7.29	231.83	2260.	2 or 4	18	Prehistoric	....
51	Antimony	Sb	121.76	6.618	630.5	1380.	3 or 5	16	Early historic times	....
52	Tellurium	Te	127.61	6.25**	452.	1390.	2, 4, or 6	17	von Reichenstein	1782
53	Iodine	I	126.91	4.94	113.5	184.35	1, 3, 5 or 7	18	Courtois	1811
54	Xenon	Xe	131.30	3.52†	-140.	-109.1	0	23	Ramsay and Travers	1898

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence	Number of isotopes†	Discoverer	Date discovered
55	Cesium	Cs	132.91	1.873	26.	670.	1	18	Bunsen and Kirchhoff	1860
56	Barium	Ba	137.36	3.78	850.	1140.	2	17	Davy	1808
57	Lanthanum	La	138.92	6.5	826.	1800.	3	15	Mosander	1839
58	Cerium	Ce	140.13	6.9	770.	1400.	3 or 4	14	Klaproth; Berzelius and Hisinger	1803
59	Praseodymium	Pr	140.92	6.475	940.	3450.	3, 4 or 5	9	Auer von Welsbach	1885
60	Neodymium	Nd	144.27	6.96	840.	3300.	3	13	Auer von Welsbach	1885
61	Promethium	Pm	145.*	.....	.....	.....	3	12††	Marinsky and Glendenin	1945
62	Samarium	Sm	150.35	7.7-8	1350.	1900.	2 or 3	14	Boisbaudran	1879
63	Europium	Eu	152.0	5.24	1100.	1700.	2 or 3	12	Demarcay	1901
64	Gadolinium	Gd	157.26	7.95	1350.	3000.	3	13	Marignac	1880
65	Terbium	Tb	158.93	8.33	1400.	2800.	3 or 4	10	Mosander	1843
66	Dysprosium	Dy	162.51	8.56	1475.	2600.	3	10	Boisbaudran	1886
67	Holmium	Ho	164.94	8.76	1475.	2700.	3	7	Soret	1878
68	Erbium	Er	167.27	9.06	1475.	2600.	3	9	Mosander	1843
69	Thulium	Tm	168.94	9.34	1500.	2400.	3	6	Cleve	1879
70	Ytterbium	Yb	173.04	9.01	824.	1800.	3	10	Marignac	1878
71	Lutetium	Lu	174.99	9.74	1650.	3500.	3 or 4	8	Urbain	1907
72	Hafnium	Hf	178.50	13.3	1700.	3200.	4	11	Coster and von Hevesy	1923
73	Tantalum	Ta	180.95	16.6	2850.	4100.	3 or 5	9	Ekeberg	1802
74	Tungsten (Wolfram)	W	183.86	18.6-19.1	3370.	5900.	2, 4, 5 or 6	12	d'Elhuyar	1783
75	Rhenium	Re	186.22	20.53 (20°C.)	3000.	.....	4	7	Noddack and Berg	1925
76	Osmium	Os	190.2	22.5	2700.	5300.	2, 3, 4 or 8	13	Tennant	1804
77	Iridium	Ir	192.2	22.42	2350.	4800.	3 or 4	7	Tennant	1804
78	Platinum	Pt	195.09	21.37	1755.	4300.	2 or 4	9	De Ulloa	1748
79	Gold	Au	197.0	19.3††	1063.0	2600.	1 or 3	12	Prehistoric	.....
80	Mercury	Hg	200.61	13.596†	-38.87	356.90	1 or 2	14	Prehistoric	.....
81	Thallium	Tl	204.39	11.86	303.5	1650.	1 or 3	13	Crookes	1861
82	Lead	Pb	207.21	11.347††	327.5	1620.	2 or 4	15	Prehistoric	.....
83	Bismuth	Bi	209.00	9.80	271.	1450.	3 or 5	17	Identified by Geoffroy	1753
84	Polonium	Po	210.	.....	.....	.....	.....	19	Curie	1898
85	Astatine	At	210.*	.....	470.	.....	1, 3, 5 or 7	15	Corson et al	1940
86	Radon	Rn	222.	9.739†	-71.	-61.8	0	12	Dorn	1900
87	Francium	Fr	223.*	.....	23.	.....	1	10	Perey	1939
88	Radium	Ra	226.05	6.0	960.	1140.	2	7	Curie	1898
89	Actinium	Ac	227.	.....	.....	.....	3	6	Debierne	1899
90	Thorium	Th	232.05	11.13	1845.	3000.	4	10	Berzelius	1828
91	Protactinium	Pa	231.	.....	.....	.....	5	9	Hahn and Meitner	1917
92	Uranium	U	238.07	18.7	1850.	3927.	3, 4 or 6	12	Klaproth	1789
93	Neptunium	Np	237.*	17.7	.....	.....	3, 4, 5 or 6	10††	McMillan and Abelson	1940
94	Plutonium	Pu	242.*	.....	.....	.....	3, 4, 5 or 6	9††	Seaborg et al	1940
95	Americium	Am	243.*	11.7	>850.	.....	3	6††	Seaborg et al	1944
96	Curium	Cm	242.	.....	.....	.....	3	6††	Seaborg et al	1944
97	Berkelium	Bk	249.*	.....	.....	.....	3 or 4	3††	Seaborg et al	1950
98	Californium	Cf	249.*	.....	.....	.....	3	2††	Seaborg et al	1950
99	Einsteinium	E	253.	.....	.....	.....	3	5††	Ghiorso et al	1954
100	Fermium	Fm	255.	.....	.....	.....	3	1††	Studier et al	1954
101	Mendelevium	Mv	256.*	.....	.....	.....	3	1††	Ghiorso et al	1955
102	Nobelium	No	253	.....	.....	.....	3	1††	Sw., Br., & Am.	1957

* Mass number of the isotope of longest known half-life.

† Isotopes are different forms of the same element, having the same atomic number but different atomic weights.

The number of isotopes given includes only those that are stable and natural occurring, excluding those marked ††.

‡ Liquid. § Amorphous. ¶ Graphite. ** Crystalline. †† Compressed. ‡‡ Cast. §§ Exact date doubtful

—born 1193 and died 1280. ¶¶ Have been artificially produced. *** New name adopted by International Union

of Chemistry, replacing old name in parentheses. < Is less than. > Is greater than.

NOTE: Figures in parentheses are tentative or theoretical. Quantities made of elements from 96 to 102 have been too small to establish melting points and similar facts.

The number of isotopes of each element is increased by discovery or by manufacture.

Scientific Inventions, Discoveries and Theories

Source: *Encyclopaedia Britannica*.

Inventions

- Adding machine, recording: William S. Burroughs, 1888.
- Airplane: Wilbur and Orville Wright, 1903.
- Air brake, railroad: George Westinghouse, 1868.
- Air pump: Otto von Guericke, 1650.
- Automobile: (Product of inventions of many men. Gottlieb Daimler is frequently given credit, c.1887.)
- Bakelite: Leo H. Baekeland, 1908.
- Balloon, hot-air: Joseph and Jacques Montgolfier, 1783.
- Barometer: Evangelista Torricelli, 1643.
- Camera, Kodak: George Eastman, 1888.
- Carburetor, spray: Charles E. Duryea, 1892.
- Cellophane: J. E. Brandenberger, 1911.
- Celluloid: John W. and I. S. Hyatt, 1870.
- Clock, pendulum: Christiaan Huygens, 1656.
- Converter, Bessemer: William Kelly, 1851. (Patent bought by Sir Henry Bessemer, who made a similar invention in 1856.)
- Cotton gin: Eli Whitney, 1793.
- Cyanide: Nikodem Caro and Adolf Frank, 1905.
- Cyclotron: Ernest O. Lawrence, 1931.
- Daguerreotype process: Louis J. M. Daguerre, 1839.
- Diesel engine: Rudolf Diesel, 1897.
- Dynamite: Alfred B. Nobel, 1862.
- Dynamo: Michael Faraday, 1831.
- Dynamo, industrial: Zénobe Gramme, 1872.
- Electromagnet: William Sturgeon, 1823.
- Electroplating: Luigi Brugnatelli, 1805.
- Elevator, passenger: Elisha G. Otis, 1857.
- Elevator safety device: Elisha G. Otis, 1852.
- Engine, high-speed internal-combustion: Gottlieb Daimler, 1885.
- Filament, tungsten: Irving Langmuir, 1915.
- Flying shuttle: John Kay, 1733.
- Food preservation, hermetically sealed (meat): François (Nicolas) Appert, 1810, with little success.
- Fountain pen: Lewis E. Waterman, 1884. (First successful one.)
- Frequency modulation (FM): Edwin H. Armstrong, 1933.
- Guncotton: Christian Schönbein, 1845.
- Gyrocompass: Elmer A. Sperry, 1905.
- Gyroscope: Léon Foucault, 1852.
- Helicopter: Igor I. Sikorsky, 1909; Louis C. Bréguet equipped first passenger carrying helicopter, 1909; first successful modern helicopter, Heinrich K. J. Focke, 1937-41.
- Hydroplane: Charles M. Ramus propounded idea around 1870; Glenn H. Curtiss, 1911.
- Jet propulsion (aircraft): Sir Frank Whittle, 1930.
- Lamp, electric incandescent: (Inventor uncertain; Thomas A. Edison, who made a lamp in 1879, is sometimes credited.)
- Lens, bifocal: Benjamin Franklin, c.1760.
- Lightning rod: Benjamin Franklin, 1752.
- Linotype machine: Ottmar Mergenthaler, 1885 (patent); first used, 1886.
- Lithography: Aloys Senefelder, 1796.
- Machine gun: Richard J. Gatling, 1861.
- Match, friction: John Walker, 1827.
- Mercury-vapor lamp: Peter C. Hewitt, 1912.
- Microscope, compound: Zacharias Janssen, 1590.
- Microscope, electron: Vladimir Zworykin et al., 1939.
- Miner's safety lamp: Sir Humphry Davy, 1815.
- Monotype machine: Tolbert Lanston, 1887.
- Motion pictures: Thomas A. Edison, 1893.
- Motion pictures, sound: (Product of various inventions. First picture with synchronized musical score: *Don Juan*, Warner Bros., 1926. First picture with spoken dialogue: *The Jazz Singer*, Warner Bros., 1927.)
- Motor, A-C: Nikola Tesla, 1892.
- Ophthalmoscope: Hermann von Helmholtz, 1851.
- Phonograph: Thomas A. Edison, 1877.
- Photography, color: Gabriel Lippmann, 1891.
- Power loom: Edmund Cartwright, 1785.
- Printing, movable-type: Johann Gutenberg (?), c.1440.
- Printing press, rotary: Richard Hoe, 1847.
- Radar: Gregory Breit & Merle A. Tuve, 1925.
- Radio: (Product of various inventions. First practical system of wireless telegraphy: Guglielmo Marconi, 1895.)
- Radio telephone: Lee De Forest, 1906.
- Radio tube, diode: Sir John Ambrose Fleming, 1904.
- Radio tube, triode: Lee De Forest, 1906.
- Rayon: George Andemars (first known patent), 1855; perfected by Sir Joseph W. Swan, 1883.
- Reaper: Cyrus McCormick, 1834.
- Revolver: Samuel Colt, 1835.
- Rifle, automatic: John M. Browning, 1918.
- Rubber, vulcanized: Ch. Goodyear, 1839.
- Screw propeller: John Ericsson, 1837.
- Self-starter, automobile: Charles F. Kettering, 1911.
- Sewing machine: Elias Howe, 1846 (patented). Idea of lock-stitch machine conceived independently by Walter Hunt, 1832-4.
- Spinning frame: Sir Richard Arkwright, 1769.
- Spinning jenny: James Hargreaves, 1764.
- Spinning mule: Samuel Crompton, 1779.
- Steamboat: Robert Fulton, 1807. (First commercially successful one in U. S.)

Steam engine: James Watt, 1765. (First practical one.)
 Tank, military: Sir Ernest Swinton, 1914.
 Telegraph, electromagnetic recording: Samuel F. B. Morse, 1837.
 Telephone: Alexander Graham Bell, 1876.
 Telescope: Hans Lippershey (?), c.1608.
 Television: Successful demonstration by J. L. Baird in England and C. F. Jenkins in U. S., in early 1920's. (First commercial TV: July 1, 1941, over WNBT, New York.)
 Thermometer: Galileo Galilei, 1593.
 Tire, pneumatic: John B. Dunlop, 1888.
 Tractor, caterpillar: Benjamin Holt, 1900.
 Transformer, electric: Wm. Stanley, 1885.
 Transistor: John Bardeen, William Shockley and Walter Brattain, 1948.
 Typewriter: First practical one invented by Christopher Sholes, Carlos Glidden and Samuel W. Soule in 1867; patented by Sholes in 1868.
 Zeppelin: Ferdinand von Zeppelin, 1900.

Discoveries and Theories

Adrenaline, isolation of: Jokichi Takamine, 1901.
 Aluminum manufacture by electrolytic action: Charles M. Hall, 1886.
 Antitoxin, diphtheria: Emil von Behring, 1890.
 Atom smashing with slow neutrons: Enrico Fermi, 1934. (Experiment repeated by Lise Meitner and Otto Hahn in 1938.)
 Atomic numbers: Henry Moseley, 1913.
 Atomic theory: John Dalton, 1803.
 Aureomycin: Benjamin M. Duggar, 1948.
 Bacteria: Anton van Leeuwenhoek, 1683.
 Blood, circulation of: William Harvey, 1628.
 Classification of plants and animals: Carolus Linnaeus, 1737-53.
 Combustion, nature of: Antoine Lavoisier, 1777.
 Conditioned reflex: Ivan Pavlov, c.1910.
 Deuterium (heavy hydrogen): Harold C. Urey, 1931.
 Displacement of water, principle of: Archimedes, 3rd century B.C.
 Electromagnetic waves: Heinrich Hertz, 1886.
 Electron: Sir Joseph J. Thomson, 1897.
 Electron, wave nature of: Louis Victor de Broglie, 1924.
 Ether, first used as anesthetic: Crawford W. Long, 1842.
 Evolution by natural selection: Charles Darwin, 1859.
 Falling bodies, law of: Galileo Galilei, 1590.
 Gases, laws governing: Joseph Gay-Lussac, 1809.
 Gravitation, law of: Sir Isaac Newton, 1687.
 Helium on sun: Sir Joseph Lockyer, 1868.
 Heredity, laws of: Gregor Mendel, 1865.
 Induction, electric: Joseph Henry, 1828.

Insulin: Sir Frederick G. Banting and J. J. R. MacLeod, 1922.
 Intelligence testing, modern: Alfred Binet and Theodore Simon, 1905.
 Isotopes, mass spectra of: Francis W. Aston, 1919.
 Isotopes, theory of: Frederick Soddy, 1912.
 Light, electromagnetic theory of: James Clerk Maxwell, 1873.
 Light, velocity of: Olaus Römer, 1675.
 Molecular hypothesis: Amadeo Avogadro, 1811.
 Neutron: James Chadwick, 1932.
 Ohm's Law: Georg S. Ohm, 1827.
 Ozone: Christian Schönbein, 1839.
 Penicillin: Sir Alexander Fleming, 1929.
 Periodic table: Dmitri Mendeleev, 1869.
 Positron: Carl D. Anderson, 1932.
 Proton: Ernest Rutherford, 1919.
 Psychoanalysis: Sigmund Freud, c.1904.
 Quantum mechanics: Werner Heisenberg, 1925.
 Quantum theory: Max von Planck, 1901.
 Rabies preventive: Louis Pasteur, 1885.
 Radioactivity: Antoine Becquerel, 1896.
 Radioactivity, artificial: Frédéric and Irène Joliot-Curie, 1934.
 Relativity, theories of: Albert Einstein, 1905-53.
 Salk antipolio vaccine: Jonas E. Salk, announced successful 1955.
 Schick test of susceptibility to diphtheria: Béla Schick, 1913.
 Secretin, isolation of: Sir William Bayliss and Ernest Starling, 1902.
 Soda manufacture from salt: Ernest Solvay, 1861.
 Solar system, heliocentricity of: Nicolaus Copernicus, 1530. (Also Aristarchus of Samos, 3rd century B.C.)
 Spectrum analysis: Robert Bunsen and Gustav Kirchhoff, 1859.
 Sulfa drugs as bactericides: Gerhard Domagk, 1932.
 Surgery, antiseptic: Sir Joseph Lister, 1867.
 Tuberculosis bacillus: Robert Koch, 1882.
 Vaccination: Edward Jenner, 1796.
 Virus, crystalized: Wendell M. Stanley, 1935.
 Vitamin A: Elmer V. McCollum and M. Davis, 1912-14.
 Vitamin B: Elmer V. McCollum, 1915-16.
 Vitamin C: A. Holst and T. Froehlich, 1912.
 Vitamin D: Elmer V. McCollum, 1922.
 Vitamin D, irradiated: Harry Steenbock, 1924.
 Wassermann test for syphilis: August von Wassermann, 1906.
 Water, synthesis of: Henry Cavendish, 1781.
 Wilson Cloud Chamber: Charles T. R. Wilson, 1911.
 X-rays: Wilhelm Roentgen, 1895.

Communicable Diseases

Source: *Control of Communicable Diseases in Man*, an official report of the American Public Health Assn.

Disease	Incubation period*	Period of communicability
Chickenpox (varicella).....	2 to 3 weeks	From 1 day before appearance of vesicles to 6 days after.
Common cold.....	12 to 72 hours; usually 24 hrs.	From 1 day before onset to 5 days after.
Conjunctivitis.....	1 to 3 days	During course of active infection.
Diphtheria.....	2 to 5 days	Usually 2 weeks or less; seldom more than 4 weeks.
Dysentery, amebic.....	3 to 4 weeks (varies widely)	During infection; possibly for years if untreated.
Food poisoning: Botulism.....	Within 18 hours	Not applicable.
Salmonella infection.....	6 to 48 hours in epidemics	3 days to 3 weeks (extremely variable).
Staphylococcus intoxication.....	½ to 4 hours	Not applicable.
German measles (rubella).....	14 to 21 days; usually 18	At least 4 days after onset of catarrhal symptoms.
Gonorrhea.....	3 to 9 days; sometimes 14	Indefinitely unless treated.
Impetigo contagiosa.....	Within 5 days; often 2	Until lesions are healed.
Influenza.....	1 to 3 days	Probably 1 week after onset.
Measles (rubeola).....	10 days (to onset) 14 days (to rash)	From 4 days before rash appears to 5 days after.
Meningitis, meningococcal.....	2 to 10 days	1 day after appropriate medication.
Mumps.....	12 to 26 days; commonly 18	From 2 days before onset to 9 days after, or until swelling subsides.
Pneumonia: Bacterial.....	Believed to be 1 to 3 days	Unknown.
Virus.....	Believed to be 7 to 21 days; commonly 12	Unknown.
Polio myelitis.....	7 to 21 days; commonly 12	From late incubation to first few days after onset; persists in feces for 3 to 6 weeks or more.
Rabies (hydrophobia).....	2 to 6 weeks or longer	Rarely communicated from man to man.
Rheumatic fever.....	Not applicable†	Not known to be communicable.
Scarlet fever and streptococcal sore throat.....	2 to 5 days	During incubation and clinical illness, about 10 days. May last for months in untreated patients.
Smallpox.....	7 to 16 days; commonly 12	From first symptoms to disappearance of scabs and crusts, a period of 2 to 3 weeks.
Syphilis.....	10 days to 10 weeks; usually 3 weeks	Variable and not definitely known.
Tetanus.....	4 days to 3 weeks	Not communicable from man to man.
Trichinosis.....	2 to 28 days after eating infected meat; usually 9 days	Not directly transmitted from man to man.
Tuberculosis.....	4 to 6 weeks (to primary phase)	As long as tubercle bacilli are discharged by patient.
Typhoid fever.....	1 to 3 weeks	As long as typhoid bacilli appear in excreta; 2 to 5% of patients become permanent carriers.
Whooping cough (pertussis)....	Commonly 7 days, almost uniformly within 10 days, and not exceeding 21 days	From 7 days after exposure to 3 weeks after onset of typical paroxysms.

* Usual limits. † Usually precipitated by a previous infection.

Gestation, Incubation and Longevity of Certain Animals

Source: T. Donald Carter, American Museum of Natural History.

Animal	Gestation and incubation, in days & (average)	Longevity, in years & (record exceptions)	Animal	Gestation and incubation, in days & (average)	Longevity, in years & (record exceptions)
Ass.....	340-385	18-20 (46)	Kangaroo.....	c. 39	10-12 (16)
Bear.....	180-240*	15-20 (34)	Lion.....	105-111	10 (29)
Cat.....	52-65	10-12 (21)	Mare.....	304-419 (336)	20-25 (50+)
Chicken.....	21	7-8 (14)	Monkey.....	149-179* (164)	12-15* (29)
Cow.....	c. 280	9-12 (25)	Mouse.....	19-31*	1-3 (4)
Deer.....	140-250	10-15 (26)	Parakeet (Budgerigar).....	17-20 (18)	8 (12+)
Dog.....	55-70 (63)	10-12 (24)	Pigeon.....	18	10-12 (39)
Duck.....	21-35* (28)	10 (15)	Rabbit.....	27-36 (31)	6-8 (15)
Elephant.....	515-760* (628)	30-40 (98)	Rat.....	21-30 (22)	3 (5)
Ewe.....	121-180*	12 (16)	Sow.....	101-130 (115)	10 (22)
Goat.....	135-163 (150)	12 (17)	Squirrel.....	28-35	8-9 (15)
Groundhog.....	28-35	4-7	Vixen (fox).....	51-60	8-10 (14)
Guinea pig.....	63-71	3 (6)	Whale.....	276-365*	.....
Hamster, golden.....	15-19	2	Wolf.....	63	10-12 (16)
Hippopotamus.....	220-255	30 (49+)	Woman.....	270+ or —	72†

* Depending on kind. † Latest life expectancy charts list this age.

Calories and Vitamins of Selected Foods

Source: U. S. Dept. of Agriculture, Agriculture Handbook No. 8 (June 1950).

Food and (amount) ¹	Energy, calories	Vitamin A value, Int. Units	Vitamin B ₁ (thiamine), mg.	Vitamin B ₂ (riboflavin), mg.	Niacin, mg.	Vitamin C (ascorbic acid), mg.
Apples (1 medium R).....	76	120	.05	.04	.2	6
Bacon: medium fat (2 sl. C).....	97	(0)	.08	.05	.8	0
Bananas (1 medium R).....	88	430	.04	.05	.7	10
Beans: snap, green (1 cup C) ²	27	830	.09	.12	.6	18
Beef: sirloin ³ (3 oz. C).....	257	30	.06	.16	4.1	0
Beets: red, diced (1 cup C).....	68	30	.03	.07	.5	11
Bread: rye (1 sl.).....	57	0	.04	.02	.4	(0)
Bread: white, enriched ⁴ (1 sl.).....	63	0	.06	.04	.5	(0)
Bread: wholewheat (1 sl.).....	55	0	.07	.03	.7	(0)
Butter (1 tbs.).....	100	460 ⁵	...	...	...	(0)
Buttermilk: cultured ⁶ (1 cup).....	86	10	.09	.43	.3	3
Cabbage (1 cup R).....	24	80	.06	.05	.3	50
Carrots: diced (1 cup C).....	44	18,130	.07	.07	.7	6
Cheese: Swiss (1 oz.).....	105	410	trace	(.11)	(trace)	(0)
Cheese: cottage ⁶ (1 cup).....	215	(50)	.04	.69	(.2)	(0)
Chicken: roasters ⁷ (4 oz. R).....	227	460	.09	.18	9.1	(0)
Chocolate: unsweetened (1 oz.).....	143	20	.01	.06	.3	(0)
Corn (1 ear C).....	84	390 ⁸	.11	.10	1.4	8
Crackers: graham (2 medium).....	55	(0)	.04	.02	.2	(0)
Cream: light (½ pt.).....	489	1,980	.07	.34	.2	3
Eggs: poached (1).....	77	540	.04	.12	trace	0
Flour: wheat, enriched ⁹ (1 cup).....	401	(0)	.48	.29	3.8	(0)
Grapefruit (½ medium).....	75	20	.07	.04	.4	76
Ham: smoked ³ (3 oz. C).....	339	(0)	.46	.18	3.5	0
Hamburger (3 oz. C).....	316	40	.07	.16	4.1	0
Honey (1 tbs.).....	62	(0)	trace	.01	trace	1
Ice cream (1/7 qt. brick).....	167	420	.03	.15	.1	1
Lamb: leg roast ³ (3 oz. C).....	230	...	.12	.21	4.4	0
Lemons (1 medium).....	20	0	.03	trace	.1	31
Liver: calf (3 oz. C).....	120	19,130	.18	2.65	13.7	30
Macaroni: enriched (1 cup PC).....	209	(0)	.24	.15	2.0	(0)
Margarine ¹⁰ (1 tbs.).....	101	460	...	...	...	(0)
Milk: fluid, whole (1 cup).....	166	(390)	.09	.42	.3	3
Molasses: cane, medium (1 tbs.).....	46	...	...	.02	.2	...
Oatmeal (1 cup C).....	148	(0)	.22	.05	.4	(0)
Oranges (1 medium).....	70	(290)	.12	.04	.4	77
Oysters ¹¹ (1 cup R).....	200	770	.35	.48	2.8	...
Peaches (1 medium R).....	46	880	.02	.05	.9	8
Peanut butter (1 tbs.).....	92	0	.02	.02	2.6	(0)
Peanuts: roasted, chopped (1 tbs.).....	50	0	.03	.01	1.5	(0)
Peas: green, immature (1 cup C).....	111	1,150	.40	.22	3.7	24
Plums (1 R).....	29	200	.04	.02	.3	3
Pork: loin ³ (3 oz. C).....	284	(0)	.71	.20	4.3	0
Potatoes: white (1 cup mashed) ¹²	159	80	.16	.10	1.7	14
Prunes: unsulfured ¹⁴ (1 cup C).....	310	2,210	.07	.20	2.0	2
Raisins: unsulfured (1 tbs.).....	26	trace	.02	.01	trace	trace
Rice: white (1 cup C).....	201	(0)	.02	.01	.7	(0)
Round steak ³ (3 oz. C).....	197	20	.06	.19	4.7	0
Salmon: pink canned (3 oz.).....	122	60	.03	.16	6.8	(0)
Sausage: pork, canned (4 oz.).....	340	(0)	.23	.27	3.4	0
Spaghetti: enriched (1 cup PC).....	218	(0)	.25	.15	2.1	(0)
Spinach (1 cup C).....	46	21,200	.14	.36	1.1	54
Sugar: granulated (1 tsp.).....	16	(0)	(0)	(0)	(0)	(0)
Sweetpotatoes (1 baked).....	183	11,410 ¹⁵	.12	.08	.9	28
Tomatoes (1 medium R).....	30	1,640	.08	.06	.8	35
Turkey: medium fat (4 oz. R).....	304	...	.10	.16	9.1	(0)
Turnips: diced (1 cup C).....	42	trace	.06	.09	.6	28
Veal cutlet ³ (3 oz. C).....	184	...	.07 ¹⁵	.24 ¹⁵	5.2 ¹⁵	0

¹ R—raw; C—cooked; PC—partially cooked. ² Cooked short time in small amount of water. ³ Boneless. ⁴ 4% nonfat milk solids. ⁵ Year-round average. ⁶ Made from skim milk. ⁷ Bone out. Thiamine, riboflavin and niacin values based on muscle meat only. ⁸ Based on yellow corn; white corn contains only a trace. ⁹ Patent. ¹⁰ Vitamin A added. ¹¹ Meat only. ¹² If very pale varieties only were used, value would be much lower. ¹³ Milk added. ¹⁴ No sugar added. ¹⁵ Data assume cut to be prepared by braising or pot roasting. Use of proportionate quantity of drippings would add approximately 50% more thiamine and niacin and 25% more riboflavin.

NOTE: Parentheses denote imputed values. The sign . . . shows that no basis could be found for imputing a value although there was some reason to believe that a measurable amount might be present.

Record Passages of Atlantic (Screw) Steamships since 1900

WESTWARD PASSAGES

Date	Ship and (flag*)	European port	Time			Speed knots	Sea miles
			D.	H.	M.		
1900,01	DEUTSCHLAND (G)	Southampton	5	11	54	23.15	3,044
1907	LUSITANIA† (B)	Queenstown	4	11	40	24.00	....
1910			4	11	40	25.88	....
1908	MAURETANIA† (B)	"	4	10	41	26.06	....
1911	" (B)	"	4	10	41	26.06	....
1929	" (B)	Cherbourg	4	21	44	26.9	3,162
1929	BREMEN† (G)	"	4	17	42	27.83	....
1930	EUROPA† (G)	"	4	17	6	27.91	3,157
1933	REX† (I)	Gibraltar	4	13	58	28.92	3,181
1935	NORMANDIE† (F)	Bishop's Rock	4	3	2	29.98	3,015
1936	QUEEN MARY† (B)	"	4	0	27	30.14	2,939
1938	"	"	3	21	48	30.99	2,907
1952	UNITED STATES† (US)	Bishop's Rock	3	12	12	34.51	2,906

EASTWARD PASSAGES

1900,01	DEUTSCHLAND† (G)	Eddystone Lt.	5	7	38	23.51	3,082
1904	KAISER WILHELM II† (G)	Plymouth	5	8	16	23.58	....
1907	LUSITANIA† (B)	Queenstown	4	15	50	23.61	....
1910			4	15	50	25.57	....
1908	MAURETANIA† (B)	"	4	13	41	25.89	....
1911	" (B)	"	4	13	41	25.89	....
1924	" (B)	Cherbourg	5	1	49	26.25	3,198
1929	" (B)	Plymouth	4	17	50	27.22	3,098
1929			4	14	30	27.91	3,084
1933	BREMEN† (G)	Cherbourg	4	17	43	28.14	....
1933			4	16	15	28.51	3,199
1935			4	3	25	30.35	....
1937	NORMANDIE† (F)	Bishop's Rock	4	..	6	30.99	2,978
1936	QUEEN MARY† (B)	"	3	23	57	30.63	....
1938	"	"	3	20	42	31.69	2,938
1952	UNITED STATES† (US)	Bishop's Rock	3	10	40	35.59	3,144

* (B)—British; (G)—German; (I)—Italian; (F)—French. † Vessels which have held the Blue Riband. Source: Maritime Adm.

Largest Transatlantic Liners Calling at U. S. and Canadian Ports

Source: Trans-Atlantic Passenger Steamship Conference.

Line	Name of ship	Flag	Length, ft.	Tonnage	Passengers
American Export.....	Constitution; Independence ¹	United States	683	30,293	1,088
Canadian Pacific.....	Empress of Britain; Empress of England ¹	British	640	25,500	1,050
Cunard.....	Queen Elizabeth.....	British	1,031	83,673	2,233
	Queen Mary.....	British	1,019	81,237	1,957
	Mauretania.....	British	772	35,674	1,157
	Caronia.....	British	715	34,172	932
	Britannic.....	British	712	27,666	993
French.....	Liberté.....	French	937	51,839	1,497
	Flandre.....	French	594	20,464	707
	Olympia.....	Liberian	616	22,980	1,307
Greek.....	Hanseatic.....	German	672	30,029	1,253
Hamburg-Atlantic.....	Rotterdam ²	Netherlands	748	38,000	1,440
Holland-America.....	Nieuw Amsterdam.....	Netherlands	759	36,667	1,194
	Statendam.....	Netherlands	642	24,294	951
	Homeric.....	Panamanian	639	25,487	1,228
Italian.....	Italia.....	Panamanian	608	21,663	1,287
	Leonardo da Vinci ³	Italian	760	32,500	1,300
	Cristoforo Colombo.....	Italian	695	29,191	1,248
	Giulio Cesare; Augustus ¹	Italian	680	27,100	1,178
	Queen Frederica.....	Greek	582	21,570	1,218
National Hellenic American.....	Bremen.....	German	700	32,336	1,200
North German Lloyd.....	Gripsholm.....	Swedish	631	23,190	842
	Kungsholm.....	Swedish	600	21,140	807
United States.....	United States.....	United States	990	53,330	1,930
	America.....	United States	723	33,961	1,046

¹ Sister ships. ² New; entering service Sept. 1959. ³ New; entering service Spring 1960.

★ CELEBRATED PERSONS ★

For birth information on Governors, Senators, and Supreme Court Justices, see Index.

Locations and dates are those of birth. A name in parentheses is the original name or form of the name of the individual.

The listings in this section have been gathered from various sources, including the subjects thereof, but the *Information Please Almanac* cannot guarantee the accuracy of each individual item. We have learned to accept the date and place of birth that any lady or gentleman claims for herself or himself and not argue about it. Where we have not been able to learn the date and place of birth, we have not attempted to invent the items.

- AARON, Hank (Henry) (baseball player); Mobile, Ala., Feb. 5, 1934.
- ABBOTT, Bud (William) (actor); Asbury Park, N. J., Oct. 2, 1898.
- ABBOTT, George (director & dramatist); Forestville, N. Y., June 25, 1889.
- ABEL, Walter (actor); St. Paul, Minn., June 6, 1898.
- ACHESON, Dean (U. S. statesman); Middletown, Conn., Apr. 11, 1893.
- ADAMS, Franklin P. (author); Chicago, Ill., Nov. 15, 1881.
- ADAMS, Sherman (former Asst. to Pres., U. S.); East Dover, Vt., Jan. 8, 1899.
- ADCOCK, Joe (baseball player); Couthatta, La., Oct. 30, 1927.
- ADDAMS, Charles (cartoonist); Westfield, N. J., Jan. 7, 1912.
- ADENAUER, Konrad (Chancellor, Ger. Fed. Rep.); Cologne, Ger., Jan. 5, 1876.
- ADLER, Larry (harmonica player); Baltimore, Md., Feb. 10, 1914.
- AIKEN, Conrad (poet); Savannah, Ga., Aug. 5, 1889.
- ALBANESE, Licia (soprano); Bari, It., July 22, 1913.
- ALBERT, Eddie (Edward Albert Helmsberger) (actor); Rock Island, Ill., Apr. 22, 1908.
- ALDA, Robert (actor); New York City, Feb. 26, 1914.
- ALI, Mohammed (Pakistani statesman & diplomat); Barisal, E. Bengal, Oct. 19, 1909.
- ALLEN, Gracie (comedienne); San Francisco, Calif., July 26, 1906.
- ALLEN, Mel (Melvin Allen Israel) (sports announcer); Birmingham, Ala., Feb. 14, 1919.
- ALLEN, Steve (comedian); New York City; Dec. 26, 1921.
- ALLYSON, June (Jan Allyson) (actress); New York City, Oct. 7, 1923.
- ALSOP, Joseph W., Jr. (journalist); Avon, Conn., Oct. 11, 1910.
- ALSOP, Stewart (journalist); New York City, May 17, 1914.
- ALSTON, Walter (baseball manager); Butler Co., Ohio, Dec. 1, 1911.
- AMECHE, Don (actor); Kenosha, Wis., May 31, 1908.
- AMORY, Cleveland (author); Nahant, Mass., Sept. 2, 1917.
- AMOS (Freeman F. Gosden) (actor); Richmond, Va., May 5, 1899.
- ANDERSON, Eddie. See Rochester.
- ANDERSON, Judith (actress); Adelaide, Austr., Feb. 10, 1898.
- ANDERSON, Marian (contralto); Philadelphia, Pa., Feb. 17, 1902.
- ANDREWS, Dana (actor); Collins, Miss., Jan. 1, 1912.
- ANDREWS, Julie (Julia Wells) (actress); Walton-on-Thames, Eng., Oct. 1, 1935.
- ANDREWS, Roy Chapman (zoologist & explorer); Beloit, Wis., Jan. 26, 1884.
- ANDY (Charles J. Correll) (actor); Peoria, Ill., Feb. 2, 1890.
- ANGELES, Victoria de los (Victoria Gamez Cima) (soprano); Barcelona, Sp., Nov. 1, 1923.
- ANGELI, Pier (Anna Maria Pierangeli) (actress); Cagliari, It., June 19, 1932.
- ANTONELLI, Johnny (baseball player); Rochester, N. Y., Apr. 12, 1930.
- ARCARO, Eddie (jockey); Cincinnati, Ohio, Feb. 19, 1916.
- ARCHIPENKO, Alexander (sculptor); Kiev, Rus., May 30, 1887.
- ARDEN, Elizabeth (cosmetician); Ontario, Can., 1891.
- ARDEEN, Eve (Eunice Quedens) (actress); Mill Valley, Calif.
- ARLEN, Harold (Hyman Arluck) (composer); Buffalo, N. Y., Feb. 15, 1905.
- ARMSTRONG, Henry (boxer); St. Louis, Mo., Dec. 12, 1912.
- ARMSTRONG, Louis (trumpeter); New Orleans, La., July 4, 1900.
- ARNAZ, Desi (Desiderio) (actor & band leader); Santiago, Cuba, Mar. 2, 1917.
- ARNES, James (actor); Minneapolis, Minn., May 26, 1923.
- ARNO, Peter (cartoonist); New York City, Jan. 8, 1904.
- ARRAU, Claudio (pianist); Chillán, Chile, Feb. 6, 1904.
- ASHBURN, Richie (baseball player); Tilden, Nebr., Mar. 19, 1927.
- ASTAIRE, Fred (Frederick Austerlitz) (dancer & actor); Omaha, Neb., May 10, 1899.
- ATKINSON, Brooks (drama critic); Melrose, Mass., Nov. 28, 1894.

- ATKINSON, Ted (jockey); Toronto, Ont., Can., June 17, 1916.
- ATTLEE, Clement R. (British statesman); London, Eng., Jan. 3, 1883.
- AUDEN, W. H. (Wystan Hugh Auden) (poet); York, Eng., Feb. 21, 1907.
- AUTRY, Gene (actor); Tloga, Tex., Sept. 29, 1907.
- BACALL, Lauren (actress); New York City, Sept. 16, 1924.
- BACCALONI, Salvatore (basso); Rome, It., Apr. 14, 1900.
- BACKHAUS, Wilhelm (pianist); Leipzig, Ger., Mar. 26, 1884.
- BAER, Max (boxer); Omaha, Nebr., Feb. 11, 1909.
- BAILEY, Pearl (singer); Newport News, Va., Mar. 29, 1918.
- BAINTER, Fay (actress); Los Angeles, Calif., 1893.
- BAKER, Josephine (singer); St. Louis, Mo., 1907.
- BALANCHINE, George (ballet director); St. Petersburg, Rus., Jan. 9, 1904.
- BALDWIN, Faith (novelist); New Rochelle, N. Y., Oct. 1, 1893.
- BALL, Lucille (actress); Jamestown, N. Y., Aug. 6, 1911.
- BANKHEAD, Tallulah (actress); Huntville, Ala., Jan. 31, 1903.
- BANKS, Ernie (baseball player); Dallas, Tex., Jan. 31, 1931.
- BANNISTER, Roger (mile runner); Harrow, Eng., Mar. 24, 1929.
- BARBER, Red (Walter L.) (sports announcer); Columbus, Miss., Feb. 17, 1908.
- BARBER, Samuel (composer); West Chester, Pa., Mar. 9, 1910.
- BARBIROLLI, Sir John (orchestra conductor); London, Eng., Dec. 2, 1899.
- BARDOT, Brigitte (actress); Paris, Fr., 1935.
- BARTHELMLESS, Richard (actor); New York City, May 9, 1897.
- BARTHOLOMEW, Freddie (actor); London, Eng., Mar. 28, 1924.
- BARTON, James (actor); Gloucester, N. J., Nov. 1, 1890.
- BARUCH, Bernard (financier); Camden, S. C., Aug. 19, 1870.
- BASIE, Count (William) (band leader); Red Bank, N. J., Aug. 21, 1906.
- BATCHELOR, Clarence Daniel (cartoonist); Osage City, Kans.
- BATISTA y ZALDIVAR, Fulgencio (former President, Cuba); Banos, Cuba, Jan. 16, 1901.
- BAUDOUIN (King, Belgium); Palace of Laeken, Belg., Sept. 7, 1930.
- BAUER, Hank (Henry) (baseball player); E. St. Louis, Ill., July 31, 1922.
- BAXTER, Anne (actress); Michigan City, Ind., May 7, 1923.
- BEEBE, William (zoologist); Brooklyn, N. Y., July 29, 1877.
- BEECHAM, Sir Thomas (orchestra conductor); St. Helens, Eng., Apr. 29, 1879.
- BEGLEY, Ed (Edward) (actor); Hartford, Conn., Mar. 25, 1901.
- BEHRMAN, S. N. (Samuel N.) (dramatist); Worcester, Mass., June 9, 1893.
- BELAFONTE, Harry (singer); New York City, Mar. 1, 1927.
- BELLAMY, Ralph (actor); Chicago, Ill., June 17, 1905.
- BEMELMANS, Ludwig (essayist); Meran, Tirol, Apr. 27, 1898.
- BENDIX, William (actor); New York City, Jan. 14, 1906.
- BEN-GURION, David (David Green) (Premier, Israel); Plónsk, Pol., Oct. 16, 1886.
- BENNETT, Joan (actress); Fallsades, N. J., Feb. 27, 1910.
- BENNETT, Robert Russell (composer); Kansas City, Mo., June 15, 1894.
- BENNY, Jack (Benjamin Kubelsky) (comedian); Waukegan, Ill., Feb. 14, 1894.
- BENTON, Thomas Hart (painter); Neosho, Mo., Apr. 15, 1889.
- BERENSON, Bernard (art historian & critic); Lithuania, June 26, 1865.
- BERGEN, Edgar (ventriloquist); Chicago, Ill., Feb. 16, 1903.
- BERGMAN, Ingrid (actress); Stockholm, Swed., 1917.
- BERLE, Milton (Milton Berlinger) (comedian); New York City, July 12, 1908.
- BERLIN, Irving (Isidore Baline) (song writer); Temum, Russia, May 11, 1888.
- BERLIN, Richard E. (publisher); Omaha, Nebr., Jan. 18, 1894.
- BERNSTEIN, Leonard (composer & conductor); Lawrence, Mass., Aug. 25, 1918.
- BERRA, Yogi (Lawrence) (baseball player); St. Louis, Mo., May 12, 1925.
- BERRYMAN, James T. (cartoonist); Washington, D. C., June 8, 1902.
- BEVAN, Aneurin (British Labour leader); Tredegar, Eng., Nov. 1897.
- BING, Rudolf (opera executive); Vienna, Aus., Jan. 9, 1902.
- BJOERLING, Jussi (tenor); Stora Tuna Dalarna, Swed., Feb. 2, 1911.
- BLACKMER, Sidney (actor); Salisbury, N. C., July 13, 1898.
- BLAIK, Earl H. (football coach); Detroit, Mich., Feb. 15, 1897.
- BLAINE, Vivian (Vivian Stapleton) (actress); Newark, N. J., Nov. 21, 1921.
- BLITZSTEIN, Marc (composer); Philadelphia, Pa., Mar. 2, 1905.
- BLOOM, Claire (actress); London, Eng., Feb. 15, 1931.
- BLOOMGARDEN, Kermit (theatrical producer); Brooklyn, N. Y., Dec. 15, 1904.
- BOGARDE, Dirk (actor); Hampstead, London, Eng., Mar. 28, 1921.
- BOHLEN, Charles E. (author and former diplomat); Clayton, N. Y., Aug. 30, 1904.
- BOHR, Niels (physicist); Copenhagen, Den., Oct. 7, 1885.
- BOLGER, Ray (actor); Dorchester, Mass., Jan. 10, 1906.
- BOLT, Tommy (golfer); Hawarth, Okla., March 31, 1919.
- BOND, Ward (actor); Denver, Colo., Apr. 9, 1905.
- BOONE, Pat (Charles) (singer); Jacksonville, Fla., June 1, 1934.
- BOONE, Richard (actor); Los Angeles, California.
- BOOTH, Shirley (Thelma Booth Ford) (actress); New York City, Aug. 30, 1907.

- BORGE**, Victor (pianist & comedian); Copenhagen, Den., Jan. 3, 1909.
- BORGNE**, Ernest (actor); Hamden, Conn., Jan. 24, 1917.
- BORZAGE**, Frank (movie director); Salt Lake City, Utah, Apr. 23, 1893.
- BOSWELL**, Connie (singer); New Orleans, La., Dec. 3.
- BOWEN**, Catherine Drinker (biographer); Haverford, Pa., Jan. 1, 1897.
- BOWLES**, Chester (author and former diplomat); Springfield, Mass., Apr. 5, 1901.
- BOYD**, William (actor); Cambridge, Ohio, June 5, 1898.
- BOYER**, Charles (actor); Figeac, Fr., Aug. 28, 1899.
- BOYER**, Ken (baseball player); Liberty, Mo., May 20, 1931.
- BOYLE**, Kay (novelist & poet); St. Paul, Minn., Feb. 19, 1903.
- BRACKEN**, Eddie (actor); Astoria, N. Y., Feb. 7, 1920.
- BRADLEY**, Omar N. (U. S. general); Clark, Mo., Feb. 12, 1893.
- BRAILOWSKY**, Alexander (pianist); Kiev, Rus., Feb. 16, 1896.
- BRANDO**, Marlon (actor); Omaha, Nebr., Apr. 3, 1924.
- BRANDT**, Willy (Herbert Frahm) (Mayor, W. Berlin); Lübeck, Ger., Dec. 18, 1913.
- BRAQUE**, Georges (painter); Argenteuil, Fr., May 13, 1882.
- BRAZZI**, Rossano (actor); Bologna, It., Sept. 18, 1916.
- BRENNAN**, Walter (actor); Lynn, Mass., July 25, 1894.
- BRISCOE**, Robert (Irish statesman); Dublin, Ire., Sept. 25, 1894.
- BRITTEN**, Benjamin (composer); Lowestoft, Eng., Nov. 22, 1913.
- BROOKS**, Van Wyck (literary critic); Plainfield, N. J., Feb. 16, 1886.
- BROWN**, Cecil (radio commentator); New Brighton, Pa., Sept. 14, 1907.
- BROWN**, Joe E. (actor); Holgate, Ohio, July 28, 1892.
- BROWN**, John Mason (drama critic); Louisville, Ky., July 3, 1900.
- BROWN**, Pamela (actress); London, Eng., July 8, 1918.
- BROWN**, Vanessa (Smylla Brind) (actress); Vienna, Aus., Mar. 24, 1928.
- BROWNELL**, Herbert, Jr. (U. S. statesman); Peru, Nebr., Feb. 20, 1904.
- BRUBECK**, Dave (jazz pianist); Concord, Calif., Dec. 6, 1920.
- BRUNDAGE**, Avery (sports executive); Detroit, Mich., Sept. 28, 1887.
- BRYNNER**, Yul (actor); Sakhalin (an island off Japan), July 11, 1917.
- BRYSON**, Lyman (educator); Valentine, Nebr., July 12, 1888.
- BUCK**, Pearl S. (novelist); Hillsboro, W. Va., June 26, 1892.
- BUHL**, Bob (baseball player); Saginaw, Mich., Aug. 12, 1928.
- BULGANIN**, Nikolai A. (Soviet statesman); Nizhni-Novgorod, Rus., June 11, 1895.
- BUNCHE**, Ralph J. (U. N. official); Detroit, Mich., Aug. 7, 1904.
- BURDETTE**, Lou (baseball player); Nitro, W. Va., Nov. 22, 1926.
- BURKE**, Adm. Arleigh A. (U. S. naval officer); Boulder, Colo., Oct. 19, 1901.
- BURKE**, Billie (actress); Washington, D. C., Aug. 7, 1886.
- BURNS**, George (Nathan Birnbaum) (comedian); New York City, Jan. 20, 1896.
- BURROWS**, Abe (playwright & producer); New York City, Dec. 18, 1910.
- BURTON**, Richard (Richard Jenkins) (actor); Pontrhydyfen, Wales, Nov. 10, 1925.
- BUSH**, Vannevar (engineer); Everett, Mass., Mar. 11, 1890.
- BUTLER**, Richard Austen (British statesman); Attock Serai, India, Dec. 9, 1902.
- BUTTONS**, Red (Aaron Chwatt) (comedian); New York City, Feb. 5, 1919.
- BYINGTON**, Spring (actress); Colorado Springs, Colo., Oct. 17, 1898.
- CADMUS**, Paul (painter & etcher); New York City, Dec. 17, 1904.
- CAESAR**, Sid (comedian); Yonkers, N. Y., Sept. 8, 1922.
- CAGNEY**, James (actor); New York City, July 17, 1904.
- CAIN**, James M. (novelist); Annapolis, Md., July 1, 1892.
- CALDER**, Alexander ("mobile" sculptor); Lawnton, Pa., July 22, 1898.
- CALDWELL**, Erskine (novelist); White Oak, Ga., Dec. 17, 1903.
- CALDWELL**, Taylor (novelist); Preswich, Eng., Sept. 7, 1900.
- CALHOUN**, Rory (Francis Durgin) (actor); Los Angeles, Calif., Aug. 8, 1923.
- CALLAS**, Maria (soprano); New York City, Dec. 4, 1923.
- CALLOWAY**, Cab (band leader); Rochester, N. Y., Dec. 25, 1907.
- CAMPANELLA**, Roy (baseball player); Homestead, Pa., Nov. 19, 1921.
- CAMUS**, Albert (novelist); Algiers, 1913.
- CANBY**, Henry Seidel (literary critic); Wilmington, Del., Sept. 6, 1878.
- CANIFF**, Milton (cartoonist); Hillsboro, Ohio, Feb. 28, 1907.
- CANTOR**, Eddie (Edward Iskowitz) (comedian); New York City, Jan. 31, 1892.
- CAPOTE**, Truman (novelist); New Orleans, La., Sept. 30, 1924.
- CAPP**, Al (cartoonist); New Haven, Conn., Sept. 28, 1909.
- CAPRA**, Frank (movie director); Palermo, Sicily, May 18, 1897.
- CAREY**, MacDonald (actor); Sioux City, Iowa, Mar. 15, 1913.
- CARLE**, Frankie (pianist); Providence, R. I., Mar. 15, 1903.
- CARLSON**, Richard (actor); Albert Lea, Minn., Apr. 29, 1912.
- CARMICHAEL**, Hoagy (song writer); Bloomington, Ind., Nov. 22, 1899.
- CARNEY**, Art (actor); Mt. Vernon, N. Y., Nov. 4, 1918.
- CARNOVSKY**, Morris (actor); St. Louis, Mo., 1898.
- CARON**, Leslie (actress); Paris, Fr., July 1, 1931.
- CARRADINE**, John (actor); New York City, Feb. 5, 1906.
- CARROLL**, Leo G. (actor); Weedon, Eng.

- CARROLL, Paul Vincent (dramatist); Dundalk, Ire., July 10, 1900.
- CARSON, Jack (actor); Carman, Can., Oct. 27, 1910.
- CARSON, Rachel (science writer); Springdale, Pa., May 27, 1907.
- CASADESUS, Robert (pianist); Paris, Fr., Apr. 7, 1899.
- CASALS, Pablo (cellist); Vendrell, Sp., Dec. 29, 1876.
- CASTRO RUZ, Fidel (Premier, Cuba); Mayarí, Oriente, Cuba, Aug. 13, 1927.
- CAVALLARO, Carmen (pianist); New York City, May 6, 1913.
- CHAGALL, Marc (painter); Vitebsk, Rus., July 7, 1887.
- CHAMPION, Gower (dancer & actor); Geneva, Ill., June 22, 1921.
- CHAMPION, Marge (dancer & actress); Los Angeles, Calif., Sept. 2, 1923.
- CHANDLER, Jeff (Ira Grossel) (actor); Brooklyn, N. Y., Dec. 15, 1918.
- CHANNING, Carol (comédienne); Seattle, Wash., Jan. 31, 1921.
- CHAPLIN, Charles (comedian); London, Eng., Apr. 16, 1889.
- CHARISSE, Cyd (Tula Finklea) (actress, dancer); Amarillo, Tex., Mar. 8, 1923.
- CHASE, Ilka (actress); New York City, Apr. 8, 1905.
- CHASE, Stuart (writer); Somersworth, N. H., Mar. 8, 1888.
- CHÁVEZ, Carlos (composer); near Mexico City, Mex., June 13, 1899.
- CHAYESKY, Paddy (Sidney) (dramatist); New York City, Jan. 29, 1923.
- CHEVALIER, Maurice (actor); Paris, Fr., Sept. 12, 1888.
- CHIANG Kai-shek (President, Nat. China); Feng-hwa, China, Oct. 31, 1887.
- CHIRICO, Giorgio de (painter); Volos, Gr., July 10, 1888.
- CHOU En-lai (Premier, Comm. China); Huai-yin, China, 1898.
- CHRISTIE, Agatha (novelist); Torquay, Eng., 1897.
- CHURCHILL, Sarah (actress); London, Eng., Oct. 7, 1914.
- CHURCHILL, Sir Winston S. (British statesman); Oxfordshire, Eng., Nov. 30, 1874.
- CLAIR, René (René Chomette) (movie director); Paris, Fr., Nov. 11, 1898.
- CLAIRE, Ina (Ina Fagan) (actress); Washington, D. C., Oct. 15, 1892.
- CLARK, Bobby (comedian); Springfield, Ohio, June 16, 1888.
- CLARK, Dane (actor); New York City, Feb. 18, 1915.
- CLARK, Dick (Richard) (TV personality); Mt. Vernon, N. Y., Nov. 30, 1929.
- CLIBURN, Van (Harvey Lavan Cliburn, Jr.) (pianist); Shreveport, La., July 12, 1934.
- CLIFT, Montgomery (actor); Omaha, Nebr., Oct. 17, 1920.
- CLOETE, Stuart (novelist); Paris, Fr., July 23, 1897.
- CLOONEY, Rosemary (singer); Maysville, Ky., May 23, 1928.
- CLURMAN, Harold (stage director); New York City, Sept. 18, 1901.
- COBB, Lee J. (actor); New York City, Dec. 8, 1917.
- COBB, Ty (Tyrus R.) (baseball player); Banks Co., Ga., Dec. 17, 1886.
- COBURN, Charles (actor); Savannah, Ga., June 19, 1877.
- COCA, Imogene (comédienne); Philadelphia, Pa.
- COCTEAU, Jean (poet & dramatist); Malsons-Laffite, Fr., July 5, 1891.
- COLAVITO, Rocky (baseball player); New York City, Aug. 10, 1933.
- COLBERT, Claudette (Lily Chauchoin) (actress); Paris, Fr., Sept. 13, 1905.
- COLE, Nat King (Nathaniel Adams Coles) (singer); Montgomery, Ala., Mar. 17, 1919.
- COLLINGE, Patricia (actress); Dublin, Ire., Sept. 20, 1894.
- COMMAGER, Henry S. (historian); Pittsburgh, Pa., Oct. 25, 1902.
- COMO, Perry (Pierino) (singer); Canonsburg, Pa., May 18, 1913.
- COMPTON, Arthur H. (physicist); Wooster, Ohio, Sept. 10, 1892.
- CONANT, James B. (scientist & educator); Dorchester, Mass., Mar. 26, 1893.
- CONLEY, Donald (baseball player); Muskogee, Okla., Nov. 10, 1930.
- CONNELLY, Marc (dramatist); McKeesport, Pa., Dec. 13, 1890.
- CONROY, Frank (actor); Derby, Eng., Oct. 14, 1890.
- CONTE, Richard (actor); New York City, Mar. 24, 1914.
- COOGAN, Jackie (actor); Los Angeles, Calif., Oct. 26, 1914.
- COOPER, Gary (Frank) (actor); Helena, Mont., May 7, 1901.
- COOPER, Jackie (actor); Los Angeles, Calif., Sept. 15, 1922.
- COPLAND, Aaron (composer); Brooklyn, N. Y., Nov. 14, 1900.
- COREY, Wendell (actor); Dracut, Mass., Mar. 20, 1914.
- CORNELL, Katharine (actress); Berlin, Ger., Feb. 16, 1898.
- CORRELL, Charles J. *See* Andy
- COSTAIN, Thomas Bertram (novelist); Brantford, Ont., Can., May 8, 1885.
- COTTEN, Joseph (actor); Petersburg, Va., 1905.
- COWARD, Noel (dramatist & actor); Teddington, Eng., Dec. 16, 1899.
- COWLES, Gardner (publisher); Algona, Iowa, Jan. 31, 1903.
- COX, Wally (Wallace Maynard Cox) (comedian); Detroit, Mich., Dec. 6, 1924.
- COZZENS, James Gould (novelist); Chicago, Ill., Aug. 19, 1903.
- CRAIN, Jeanne (actress); Barstow, Calif., May 25, 1925.
- CRAWFORD, Broderick (actor); Philadelphia, Pa., Dec. 9, 1911.
- CRAWFORD, Cheryl (theatrical producer); Akron, Ohio, Sept. 24, 1902.
- CRAWFORD, Joan (Lucille LeSueur) (actress); San Antonio, Tex., Mar. 23, 1908.
- CRONIN, A. J. (Archibald J. Cronin) (novelist); Cardross, Scot., July 19, 1896.
- CRONIN, Joe (baseball executive); San Francisco, Calif., Oct. 12, 1906.
- CRONYN, Hume (actor); London, Ont., Can., July 18, 1911.

- CROSBY**, Bing (Harry) (actor & singer); Tacoma, Wash., May 2, 1904.
- CROSBY**, Bob (band leader & actor); Spokane, Wash., Aug. 23, 1913.
- CROSS**, Milton (radio announcer); New York City, Apr. 16, 1897.
- CROUSE**, Russel (dramatist); Findlay, Ohio, Feb. 20, 1893.
- CUGAT**, Xavier (orchestra leader); Barcelona, Sp., Jan. 1, 1900.
- CUKOR**, George (movie director); New York City, July 7, 1899.
- CULP**, Robert (actor); Berkeley, Calif., Aug. 16, 1931.
- CUMMINGS**, E. E. (Edward Estlin Cummings) (poet); Cambridge, Mass., Oct. 14, 1894.
- CUMMINGS**, Robert (actor); Joplin, Mo., June 9, 1910.
- CURTICE**, Harlow H. (industrialist); Easton Rapids, Mich., Aug. 15, 1893.
- CURTIS**, Tony (Bernard Schwartz) (actor); New York City, June 3, 1925.
- CURTIZ**, Michael (movie director); Budapest, Hung., Dec. 24, 1888.
- CURZON**, Clifford (pianist); London, Eng., May 18, 1907.
- DACHÉ**, Lilly (hat designer); Belgies, Fr.
- DAHL**, Arlene (actress); Minneapolis, Minn., Aug. 11.
- DALI**, Salvador (painter); Figueras, Sp., May 11, 1904.
- DALY**, John (news commentator); Johannesburg, S. Afr., Feb. 20, 1914.
- DAMONE**, Vic (Vito Farinola) (singer); Brooklyn, N. Y., June 12, 1928.
- DANDRIDGE**, Dorothy (actress); Cleveland, Ohio.
- DANILOVA**, Alexandra (dancer); Peterhof, Rus.
- DARCEL**, Denise (Denise Billecard) (actress); Paris, Fr., Sept. 8, 1925.
- DARNELL**, Linda (actress); Dallas, Tex.
- DARRIEUX**, Danielle (actress); Bordeaux, Fr., May 1, 1917.
- DAVIES**, Marion (Marion Douras) (actress); New York City, Jan. 1, 1900.
- DAVIS**, Bette (actress); Lowell, Mass., Apr. 5, 1908.
- DAVIS**, Joan (actress); St. Paul, Minn., June 29, 1912.
- DAVIS**, Sammy, Jr. (singer); New York City, Jan. 1926.
- DAVIS**, Stuart (painter); Philadelphia, Pa., Dec. 7, 1894.
- DAY**, Doris (Doris von Kappelhoff) (singer); Cincinnati, Ohio, Apr. 3, 1924.
- DAY**, Laraine (Loraine Johnson) (actress); Roosevelt, Utah, Oct. 13, 1920.
- DEAN**, Dizzy (Jay Hanna Dean) (baseball player and announcer); Lucas, Ark., Jan. 16, 1911.
- DE GAULLE**, Charles (President, France); Lille, Fr., Nov. 22, 1890.
- DE HAVILLAND**, Olivia (actress); Tokyo, Jap., July 1, 1916.
- DEMARET**, Jim (golfer); Houston, Tex., May 10, 1910.
- DE MILLE**, Agnes (choreographer); New York City.
- DEMPSEY**, Jack (William H.) (boxer); Manassa, Colo., June 24, 1894.
- DERAIN**, André (painter); Chatou, Fr., June 10, 1880.
- DE ROCHEMONT**, Louis (movie producer); Chelsea, Mass., Jan. 13, 1899.
- DE SICA**, Vittorio (actor & movie director); Sora, It., July 7, 1901.
- DE VALERA**, Eamon (President, Ireland); New York City, Oct. 14, 1882.
- DEVINE**, Andy (actor); Flagstaff, Ariz., Oct. 7, 1905.
- DEWEY**, Thomas E. (U. S. statesman); Owosso, Mich., Mar. 24, 1902.
- DE WILDE**, Brandon (actor); New York City, Apr. 9, 1942.
- DICKSON**, Murry (baseball player); Tracy, Mo., Aug. 21, 1916.
- DIEFENBAKER**, John G. (Pr. Min., Canada); Grey County, Ont., Can., Sept. 18, 1895.
- DIETRICH**, Marlene (Maria Magdalena von Losch) (actress); Berlin, Dec. 27, 1904.
- DILLON**, C. Douglas (Under Secy. of State, U. S.); Geneva, Switz., Aug. 21, 1909.
- DIMAGGIO**, Joe (baseball player); Martinez, Calif., Nov. 25, 1914.
- DISNEY**, Walt (animated cartoonist); Chicago, Ill., Dec. 5, 1901.
- DOHNÁNYI**, Ernst von (composer); Pressburg, Slovakia, July 27, 1877.
- DOLIN**, Anton (dancer & choreographer); Slinfold, Sussex, Eng., July 27, 1904.
- DONLEVY**, Brian (actor); Portadown, Ire., Feb. 9, 1903.
- DONOVAN**, Richard (baseball player); Quincy, Mass., Dec. 7, 1927.
- DOOLITTLE**, James H. (aviator); Alameda, Calif., Dec. 14, 1896.
- DORATI**, Antal (orchestra conductor); Budapest, Hung., Apr. 9, 1906.
- DOS PASSOS**, John (novelist); Chicago, Ill., Jan. 14, 1896.
- DOUGLAS**, Kirk (Issur Danielovitch) (actor); Amsterdam, N. Y., Dec. 9, 1916.
- DOUGLAS**, Melvyn (Melvyn Hesselberg) (actor); Macon, Ga., Apr. 5, 1901.
- DOWLING**, Eddie (Edward Goucher) (actor & director); Woonsocket, R. I., Dec. 9, 1894.
- DRAKE**, Alfred (singer & actor); New York City, Oct. 7, 1914.
- DRAPER**, Paul (dancer); Florence, It., Oct. 25, 1911.
- DRUMMOND**, Roscoe (journalist); Theresa, N. Y.
- DRYSDALE**, Don (baseball player); Van Nuys, Calif., July 23, 1936.
- DUBINSKY**, David (David Dobniewski) (labor leader); Brest-Litovsk, Poland, Feb. 22, 1892.
- DUCLOS**, Jacques (French Communist leader); Louey, Fr., Oct. 2, 1896.
- DULLES**, Allen W. (CIA Director, U. S.); Watertown, N. Y., Apr. 7, 1893.
- DU MAURIER**, Daphne (novelist); London, Eng., May 13, 1907.
- DUNNE**, Irene (actress); Louisville, Ky., Dec. 20, 1904.
- DUNNOCK**, Mildred (actress); Baltimore, Md., Jan. 25.
- DURANTE**, Jimmy (comedian); New York City, Feb. 10, 1893.

- DUROCHER**, Leo (former baseball manager); West Springfield, Mass., July 27, 1906.
- DYKES**, Jimmie (baseball coach); Philadelphia, Pa., Nov. 10, 1896.
- ECKSTINE**, Billy (singer); Pittsburgh, Pa., July 8, 1914.
- EDDY**, Nelson (baritone); Providence, R. I., June 29, 1901.
- EDEN**, Sir Anthony (British statesman); England, June 12, 1897.
- EGLEVSKY**, André (dancer); Moscow, Rus., Dec. 21, 1917.
- EISENHOWER**, Dwight D. (President, U. S.); Denison, Tex., Oct. 14, 1890.
- EISENHOWER**, Milton S. (educator); Abilene, Kans., Sept. 15, 1899.
- EKBERG**, Anita (actress); Malmö, Swed.
- ELDRIDGE**, Florence (Florence McKechnie) (actress); Brooklyn, N. Y., Sept. 5, 1901.
- ELIOT**, T. S. (Thomas Stearns Eliot) (poet); St. Louis, Mo., Sept. 26, 1888.
- ELIZABETH II** (Queen, Gr. Brit., etc.); London, Eng., Apr. 21, 1926.
- ELLINGTON**, Duke (Edward) (band leader); Washington, D. C., Apr. 29, 1899.
- ELLIOTT**, Herb (mile runner); Perth, Australia, Feb. 25, 1938.
- ELMAN**, Mischa (violinist); Stalnoye, Rus., Jan. 20, 1891.
- EMERSON**, Faye (actress); Elizabeth, La., July 8, 1917.
- EPSTEIN**, Sir Jacob (sculptor); New York City, Nov. 10, 1880.
- EVANS**, Dame Edith (actress); London, Eng., Feb. 8, 1888.
- EVANS**, Maurice (actor); Dorchester, Eng., June 3, 1901.
- EWELL**, Tom (Yewell Tompkins) (actor); Owensboro, Ky., Apr. 29, 1909.
- FABRAY**, Nanette (Nanette Fabarés) (actress); San Diego, Calif., Oct. 27, 1922.
- FADIMAN**, Clifton (literary critic); Brooklyn, N. Y., May 15, 1904.
- FAIRBANKS**, Douglas, Jr., (actor); New York City, Dec. 9, 1909.
- FAIRLESS**, Benjamin F. (industrialist); Pigeon Run, Ohio, May 3, 1890.
- FALKENBURG**, Jinx (Eugenia) (actress); Barcelona, Sp., Jan. 21, 1919.
- FARRELL**, James T. (novelist); Chicago, Ill., Feb. 27, 1904.
- FAULKNER**, William (novelist); New Albany, Miss., Sept. 25, 1897.
- FERBER**, Edna (novelist); Kalamazoo, Mich., Aug. 15, 1887.
- FERNANDEL** (Fernand Contandin) (actor); Marseille, France, May 8, 1903.
- FERRER**, Jose (actor); Santurce, P. R., Jan. 8, 1912.
- FERRER**, Mel (actor); Elberon, N. J., Aug. 25, 1917.
- FIELD**, Betty (actress); Boston, Mass., Feb. 8, 1918.
- FIELD**, Marshall, Jr. (newspaperman); New York City, June 15, 1916.
- FIELDS**, Gracie (actress); Rochdale, Eng., Jan. 9, 1898.
- FISHER**, Eddie (singer); Philadelphia, Pa., Aug. 10, 1928.
- FITZGERALD**, Barry (William J. Shields) (actor); Dublin, Ire., Mar. 1888.
- FITZGERALD**, Ella (singer); Newport News, Va., Apr. 25, 1918.
- FITZSIMMONS**, Sunny Jim (horse trainer); Sheepshead Bay, N. Y., July 23, 1874.
- FLAGSTAD**, Kirsten (soprano); Hamar, Nor., July 12, 1895.
- FLEMING**, Rhonda (Marilyn Louis) (actress); Los Angeles, Calif., Aug. 10, 1923.
- FLYNN**, Errol (actor); Hobart, Tasmania, June 20, 1909.
- FOCH**, Nina (actress); Leyden, Neth., Apr. 20, 1924.
- FONDA**, Henry (actor); Grand Island, Nebr., May 16, 1905.
- FONTAINE**, Joan (actress); Tokyo, Jap., Oct. 22, 1917.
- FONTANNE**, Lynn (actress); London, Eng., 1887.
- FONTEYN**, Dame Margot (Margaret Hookham) (ballerina); Reigate, Eng., May 18, 1919.
- FORD**, Glenn (Gwyllyn Ford) (actor); Quebec, Can., May 1, 1916.
- FORD**, Henry, II (industrialist); Detroit, Mich., Sept. 4, 1917.
- FORD**, John (movie director); Cape Elizabeth, Maine, Feb. 1, 1895.
- FORD**, Tennessee Ernie (entertainer); Fordtown, Tenn., Feb. 13, 1919.
- FORD**, Whitey (Edward) (baseball player); New York City, Oct. 21, 1928.
- FORESTER**, C. S. (Cecil Scott Forester) (novelist); Cairo, Egypt, Aug. 27, 1899.
- FOWLER**, Gene (biographer); Denver, Colo., 1890.
- FOX**, Nellie (Jacob Nelson Fox) (baseball player); St. Thomas, Pa., Dec. 25, 1927.
- FRANCESCATTI**, Zino (violinist); Marseille, Fr., Aug. 9, 1905.
- FRANCIS**, Arlene (Arlene Francis Kazanjian) (actress); Boston, Mass., 1908.
- FRANCO**, Francisco (Chief of State, Spain); El Ferrol, Sp., Dec. 4, 1892.
- FRAWLEY**, William (actor); Burlington, Iowa, Feb. 26, 1893.
- FREDERICK IX** (King, Denmark); nr. Copenhagen, Den., Mar. 11, 1899.
- FRICK**, Ford C. (baseball executive); Wawaka, Ind., Dec. 19, 1894.
- FRIEND**, Robert (baseball player); Lafayette, Ind., Mar. 24, 1930.
- FRIML**, Rudolf (composer); Prague, Czech., Dec. 7, 1884.
- FRISCH**, Frank F. (baseball player and announcer); New York City, Sept. 9, 1898.
- FROST**, Robert (poet); San Francisco, Calif., Mar. 26, 1875.
- FRY**, Christopher (dramatist); Bristol, Eng., Dec. 18, 1907.
- FUNSTON**, George Keith (financial executive); Waterloo, Iowa, Oct. 12, 1910.
- FURILLO**, Carl (baseball player); Stony Creek Mills, Pa., Mar. 8, 1922.
- GABIN**, Jean (actor); Paris, Fr., May 17, 1904.
- GABLE**, Clark (actor); Cadiz, Ohio, Feb. 1, 1901.

- GABOR, Eva** (actress); Budapest, Hung.
- GABOR, Zsa Zsa** (Sari) (actress); Budapest, Hung., Feb. 6, 1923.
- GAITSKELL, Hugh** (British statesman); London, Eng., Apr. 9, 1906.
- GALLICO, Paul** (author); New York City, July 26, 1897.
- GALLUP, George H.** (public opinion statistician); Jefferson, Iowa, Nov. 18, 1901.
- GARBO, Greta** (Greta Gustafsson) (actress); Stockholm, Swed., Sept. 18, 1905.
- GARDEN, Mary** (soprano); Aberdeen, Scot., Feb. 20, 1877.
- GARDNER, Ava** (actress); Smithfield, N. C., Dec. 24, 1922.
- GARDNER, Erle Stanley** (novelist); Malden, Mass., July 17, 1889.
- GARLAND, Judy** (Frances Gumm) (actress); Grand Rapids, Minn., June 10, 1922.
- GARNER, James** (actor); Norman, Okla., Apr. 17, 1928.
- GARROWAY, Dave** (comedian); Schenectady, N. Y., July 13, 1913.
- GARSON, Greer** (actress); County Down, No. Ire.
- GAXTON, William** (Arturo Caxiola) (actor); San Francisco, Calif., Dec. 2, 1893.
- GAYNOR, Mitzl** (actress); Chicago, Ill., Sept. 4, 1931.
- GEDDES, Barbara Bel** (actress); New York City, Oct. 31, 1922.
- GEORGE, Grace** (actress); New York City, Dec. 25, 1880.
- GERSHWIN, Ira** (lyricist); New York City, Dec. 6, 1896.
- GIBSON, Althea** (tennis player); Silver, S. C., Aug. 25, 1927.
- GIELGUD, Sir John** (actor); London, Eng., Apr. 14, 1904.
- GILELS, Emil** (pianist); Odessa, Ukr., 1916.
- GILES, Warren** (baseball executive); Tiskilwa, Ill., May 28, 1896.
- GIMBEL, Bernard F.** (merchant); Vincennes, Ind., Apr. 10, 1885.
- GISH, Dorothy** (actress); Massillon, Ohio, Mar. 11, 1898.
- GISH, Lillian** (actress); Springfield, Ohio, Oct. 14, 1896.
- GLEASON, Jackie** (actor); Brooklyn, N. Y., Feb. 26, 1916.
- GOBEL, George** (comedian); Chicago, Ill., May 20, 1920.
- GODDARD, Paulette** (actress); Great Neck, N. Y., June 3, 1911.
- GODFREY, Arthur** (entertainer); New York City, Aug. 31, 1903.
- GOLDBERG, Rube** (Reuben) (cartoonist); San Francisco, Calif., July 4, 1883.
- GOLDWYN, Samuel** (Samuel Goldfish) (movie producer); Warsaw, Pol., 1882.
- GONZALEZ, Pancho** (tennis player); Los Angeles, Calif., May 9, 1928.
- GOODMAN, Benny** (clarinetist); Chicago, Ill., May 30, 1909.
- GORDON, Max** (play producer); New York City, 1892.
- GORDON, Ruth** (actress); Wollaston, Mass., Oct. 30, 1896.
- GOREN, Charles H.** (bridge expert); Philadelphia, Pa., Mar. 4, 1901.
- GOSDEN, Freeman F.** *See* Amos.
- GOULD, Chester** (cartoonist); Pawnee, Okla., 1900.
- GOULD, Morton** (composer); Richmond Hill, N. Y., Dec. 10, 1913.
- GRABLE, Betty** (actress); St. Louis, Mo., Dec. 18, 1916.
- GRAHAM, Billy** (William F.) (evangelist); Charlotte, N. C., Nov. 7, 1918.
- GRAHAM, Martha** (choreographer); Pittsburgh, Pa.
- GRAHAME, Gloria** (Gloria Grahame Hallward) (actress); Los Angeles, Calif., Nov. 28, 1924.
- GRANGE, Red** (Harold) (football player and announcer); Forksville, Pa., June 13, 1904.
- GRANGER, Stewart** (James Stewart) (actor); London, Eng., May 6, 1913.
- GRANT, Cary** (Archibald A. Leach) (actor); Bristol, Eng., Jan. 18, 1904.
- GRAVES, Robert** (poet & novelist); London, Eng., July 26, 1895.
- GRAY, Harold** (cartoonist); Kankakee, Ill., Jan. 20, 1894.
- GRECO, José** (dancer); Montorio nel Fren-tani, It., Dec. 23, 1918.
- GREEN, Paul** (dramatist); Lillington, N. C., Mar. 17, 1894.
- GREENE, Graham** (novelist); Berkhamstead, Eng., Oct. 2, 1904.
- GRIMM, Charley** (baseball executive); St. Louis, Mo., Aug. 28, 1898.
- GRISWOLD, A. Whitney** (educator); Morris-town, N. J., Oct. 27, 1906.
- GROFÉ, Ferde** (composer); New York City, Mar. 27, 1892.
- GROMYKO, Andrei A.** (Soviet statesman); Starye Gromyki, Rus., July 5, 1909.
- GRONCHI, Giovanni** (President, Italy); Pontedera, It., Sept. 10, 1887.
- GROPIUS, Walter** (architect); Berlin, Ger., May 18, 1883.
- GROVE, Lefty** (Robert M.) (baseball player); Lonaconing, Md., Mar. 6, 1900.
- GRUENTHER, Gen. Alfred M.** (Pres., Red Cross); Platte Center, Nebr., Mar. 3, 1899.
- GUINNESS, Sir Alec** (actor); Marylebone, London, Eng., Apr. 2, 1914.
- GUNTHER, John** (journalist & author); Chicago, Ill., Aug. 30, 1901.
- GUSTAVUS VI** (King, Sweden); Stockholm, Swed., Nov. 11, 1882.
- HACKETT, Francis** (critic & novelist); Kil-kenny, Ire., Jan. 21, 1883.
- HAGEN, Walter** (golfer); Rochester, N. Y., Dec. 21, 1892.
- HAGERTY, James C.** (Pres. Press Secy., U. S.); Plattsburg, N. Y., May 9, 1909.
- HAILE SELASSIE I** (Emperor, Ethiopia); Ethiopia, July 17, 1891.
- HALAS, George** (football coach); Chicago, Ill., Feb. 2, 1895.
- HAMMARSKJÖLD, Dag** (Sec. Gen., U. N.); Jönköping, Swed., July 29, 1905.
- HAMMERSTEIN, Oscar, II** (librettist); New York City, July 12, 1895.
- HAMMETT, Dashiell** (novelist); St. Marys Co., Md., May 27, 1894.
- HAND, Learned** (U. S. jurist); Albany, N. Y., Jan. 27, 1872.

- HANEY, Fred (baseball manager); Albuquerque, N. Mex., Apr. 25, 1898.
- HANSON, Howard (composer); Wahoo, Nebr., Oct. 28, 1896.
- HARDWICKE, Sir Cedric (actor); Lye, Eng., Feb. 19, 1893.
- HARRIDGE, Will (baseball executive); Chicago, Ill., Oct. 16, 1886.
- HARRIS, Bucky (Stanley R.) (baseball manager); Port Jervis, N. Y., Nov. 8, 1896.
- HARRIS, Jed (stage producer); Vienna, Aus., Feb. 25, 1900.
- HARRIS, Julie (actress); Grosse Pointe Park, Mich., Dec. 2, 1925.
- HARRIS, Phil (band leader); Linton, Ind., June 24, 1906.
- HARRIS, Roy (composer); Lincoln Co., Okla., Feb. 12, 1898.
- HARRISON, Rex (actor); Huyton, Eng., Mar. 5, 1908.
- HARRISON, Wallace K. (architect); Worcester, Mass., Sept. 28, 1895.
- HART, Moss (dramatist); New York City, Oct. 24, 1904.
- HATLO, Jimmy (cartoonist); Providence, R. I., Sept. 1, 1898.
- HAYOC, June (June Hovick) (actress); Seattle, Wash.
- HAWKINS, Jack (actor); London, Eng., Sept. 14.
- HAYES, Helen (Helen Hayes Brown) (actress); Washington, D. C., Oct. 10, 1900.
- HAYWARD, Leland (theatrical producer); Nebraska City, Nebr., Sept. 13, 1902.
- HAYWARD, Susan (Edythe Marrener) (actress); Brooklyn, N. Y., June 30, 1919.
- HAYWORTH, Rita (Margarita Cansino) (actress); New York City, Oct. 17, 1918.
- HEALD, Henry T. (educator); Lincoln, Nebr., Nov. 8, 1904.
- HEARST, David W. (publisher); New York City, Dec. 2, 1915.
- HEARST, Randolph A. (publisher); New York City, Dec. 2, 1915.
- HEARST, William Randolph, Jr. (publisher); New York City, Jan. 27, 1908.
- HECHT, Ben (novelist & dramatist); New York City, Feb. 28, 1894.
- HEFLIN, Van (actor); Walters, Okla., Dec. 13, 1910.
- HEIFETZ, Jascha (violinist); Vilna, Rus., Feb. 2, 1901.
- HELLMAN, Lillian (dramatist); New Orleans, La., June 20, 1905.
- HEMINGWAY, Ernest (novelist); Oak Park, Ill., July 21, 1898.
- HENDERSON, Skitch (pianist); Birmingham, Eng., Jan. 27, 1918.
- HENIE, Sonja (skater); Oslo, Nor., Apr. 8, 1913.
- HENREID, Paul (actor); Trieste, Jan. 10, 1908.
- HEPBURN, Audrey (actress); Brussels, Belg., May 4, 1929.
- HEPBURN, Katharine (actress); Hartford, Conn., Nov. 8, 1909.
- HERBLOCK (Herbert L. Block) (cartoonist); Chicago, Ill., Oct. 13, 1909.
- HERMAN, Woody (band leader); Milwaukee, Wis., May 16, 1913.
- HERSEY, John R. (novelist); Tientsin, China, June 17, 1914.
- HERTER, Christian A. (U. S. Secy. of State); Paris, Fr., Mar. 28, 1895.
- HESS, Dame Myra (pianist); London, Eng., Feb. 25, 1890.
- HESTON, Charlton (actor); Evanston, Ill., Oct. 4, 1924.
- HEYERDAHL, Thor (author & explorer); Larvik, Nor., Oct. 6, 1914.
- HILDEGARDE (Hildegard Loretta Sell) (entertainer); Adell, Wis., Feb. 1, 1906.
- HILLARY, Sir Edmund (explorer); New Zealand, July 20, 1919.
- HILLIARD, Harriet. See Nelson, Harriett.
- HINDEMITH, Paul (composer); Hanau, Ger., Nov. 16, 1895.
- HIROHITO (Emperor, Japan); Japan, Apr. 29, 1901.
- HIRSCH, Max (horse trainer); Fredericksburg, Tex., July 12, 1880.
- HITCHCOCK, Alfred J. (movie director); England, Aug. 13, 1899.
- HO Chi-minh (President, Dem. Rep. of Vietnam); Annam, Indo-China, c. 1891.
- HOAD, Lew (Lewis) (tennis player); Glebe, NSW, Australia, Nov. 23, 1934.
- HOBSON, Laura Z. (Laura K. Zametkin) (novelist); New York City.
- HODGES, Gil (Gilbert) (baseball player); Princeton, Ind., Apr. 4, 1924.
- HOGAN, Ben (golfer); Dublin, Tex., Aug. 13, 1912.
- HOLDEN, William (William Franklin Beedle, Jr.) (actor); O'Fallon, Ill., Apr. 17, 1918.
- HOLLIDAY, Judy (Judith Tuvim) (actress); New York City, June 21, 1923.
- HOLM, Celeste (actress & singer); New York City, Apr. 29, 1919.
- HOOVER, Herbert C. (U. S. statesman); West Branch, Iowa, Aug. 10, 1874.
- HOOVER, J. Edgar (FBI Director, U. S.); Washington, D. C., Jan. 1, 1895.
- HOPE, Bob (Leslie Townes Hope) (comedian); London, Eng., May 29, 1903.
- HOPPER, Hedda (Elda Furry) (columnist); Hollidaysburg, Pa., June 2, 1890.
- HORNE, Lena (singer) Brooklyn, New York, 1918.
- HORNSBY, Rogers (baseball player and coach); Winters, Tex., Apr. 27, 1896.
- HOROWITZ, Vladimir (pianist); Kiev, Rus., Oct. 1, 1904.
- HORTON, Edward Everett (actor); Brooklyn, N. Y., Mar. 18, 1886.
- HORTON, Robert (actor); Los Angeles, Calif., July 29.
- HOUSEMAN, John (John Haussmann) (stage & movie director); Bucharest, Rum., Sept. 22, 1902.
- HOWARD, Roy W. (publisher); Gano, Ohio, Jan. 1, 1883.
- HOWELL, Jim Lee (football coach); Lonoke, Ark., Sept. 27, 1914.
- HUBBELL, Carl (baseball executive); Carthage, Mo., June 22, 1903.
- HUDSON, Rock (Roy Fitzgerald) (actor); Winnetka, Ill., Nov. 17, 1925.
- HUGHES, Langston (poet); Joplin, Mo., Feb. 1, 1902.
- HULL, Henry (actor); Louisville, Ky., Oct. 3, 1890.
- HUNTER, Kim (Janet Cole) (actress); Detroit, Mich., Nov. 12, 1922.

- HUNTER**, Tab (actor); New York City, July 11, 1931.
- HUROK**, Sol (impresario); Fogar, Rus., Apr. 9, 1888.
- HUSSEIN I** (King, Jordan); Jordan, May 2, 1935.
- HUSTON**, John (movie director); Nevada, Mo., Aug. 5, 1906.
- HUTCHINS**, Robert M. (educator); Brooklyn, N. Y., Jan. 17, 1899.
- HUTTON**, Barbara (heiress); New York City, Nov. 14, 1912.
- HUTTON**, Betty (Betty Thornberg) (singer); Battle Creek, Mich., Feb. 26, 1921.
- HUXLEY**, Aldous (novelist); Godalming, Eng., July 26, 1894.
- HUXLEY**, Julian S. (biologist); England, June 22, 1887.
- IBERT**, Jacques (composer); Paris, Fr., Aug. 15, 1890.
- INGE**, William (dramatist); Independence, Kans., May 3, 1913.
- IRELAND**, John (actor); Vancouver, B. C., Can., Jan. 30, 1915.
- ISHERWOOD**, Christopher (novelist); Disley, Cheshire, Eng., Aug. 26, 1904.
- ITURBI**, José (pianist); Valencia, Sp., Nov. 28, 1895.
- IVES**, Burl (folksinger & actor); Hunt, Ill., June 14, 1909.
- JACOBS**, Hirsch (horse trainer); New York City, Apr. 8, 1904.
- JAFFE**, Sam (actor); New York City, Mar. 8, 1898.
- JAMES**, Harry (trumpeter); Albany, Ga., Mar. 15, 1916.
- JAMESON**, Margaret Storm (novelist); Whitby, Eng., 1897.
- JEANMAIRE**, Renée (dancer & actress); Paris, Fr., Apr. 29, 1924.
- JEBB**, Sir Gladwyn (British statesman); England, Apr. 25, 1900.
- JEFFERS**, Robinson (poet); Pittsburgh, Pa., Jan. 10, 1887.
- JESSEL**, George (comedian); New York City, Apr. 3, 1898.
- JESSUP**, Philip C. (U. S. statesman); New York City, Jan. 5, 1897.
- JOHANSSON**, Ingemar (boxer); Göteborg, Swed., Sept. 22, 1932.
- JOHN XXIII** (Angelo Giuseppe Roncalli) (Pope); Sotto il Monte, It., Nov. 25, 1881.
- JOHN**, Augustus (painter); Tenby, Wales, Jan. 4, 1879.
- JOHNS**, Glynis (actress); Durban, So. Af., Oct. 5, 1923.
- JOHNSON**, Van (actor); Newport, R. I., Aug. 20, 1916.
- JOHNSTON**, Eric A. (movie executive); Washington, D. C., Dec. 21, 1896.
- JONES**, Bobby (golfer); Atlanta, Ga., Mar. 17, 1902.
- JONES**, James (novelist); Robinson, Ill., Nov. 6, 1921.
- JONES**, Jennifer (Phyllis Isley) (actress); Tulsa, Okla., Mar. 2, 1919.
- JONES**, Sam (baseball player); Stewartsville, Ohio, Dec. 14, 1925.
- JORDAN**, James. *See* McGee.
- JORDAN**, Marian. *See* McGee.
- JOURDAN**, Louis (actor); Marseilles, Fr., June 18, 1921.
- JULIANA** (Queen, Netherlands); The Hague, Neth., Apr. 30, 1909.
- JUNG**, Carl G. (psychoanalyst); Basel, Switz., July 26, 1875.
- KADAR**, János (Hungarian statesman); Hungary, 1912.
- KAISER**, Henry J. (industrialist); Sprout Brook, N. Y., May 9, 1882.
- KALINE**, Al (Albert) (baseball player); Baltimore, Md., Dec. 19, 1934.
- KALTENBORN**, Hans V. (radio commentator); Milwaukee, Wis., July 9, 1878.
- KANIN**, Garson (dramatist & director); Rochester, N. Y., Nov. 24, 1912.
- KANTOR**, MacKinlay (novelist); Webster City, Iowa, Feb. 4, 1904.
- KARLOFF**, Boris (William Henry Pratt) (actor); Dulwich, Eng., Nov. 23, 1887.
- KAUFMAN**, George S. (dramatist); Pittsburgh, Pa., Nov. 16, 1889.
- KAYE**, Danny (David Daniel Kominski) (comedian); Brooklyn, New York, Jan. 18, 1913.
- KAYE**, Nora (Nora Koreff) (ballerina); New York City, 1920.
- KAYE**, Sammy (band leader); Cleveland, Ohio, Mar. 13, 1910.
- KAZAN**, Elia (movie & stage director); Constantinople, Turk., Sept. 7, 1909.
- KEATON**, Buster (comedian); Plqua, Kans., Oct. 4, 1896.
- KEEL**, Howard (singer & actor); Gillespie, Ill., Apr. 13.
- KELLAND**, Clarence Budington (novelist); Portland, Mich., July 11, 1881.
- KELLER**, Helen (author & social worker); Tusculmba, Ala., June 27, 1880.
- KELLY**, Emmett (circus clown); Sedan, Kans., 1898.
- KELLY**, Gene (actor); Pittsburgh, Pa., Aug. 23, 1912.
- KELLY**, Grace (actress & Princess of Monaco); Philadelphia, Pa., Nov. 12, 1929.
- KELLY**, Jack (actor); Astoria, N. Y., Sept. 16, 1927.
- KELLY**, Walt (cartoonist); Philadelphia, Pa., Aug. 25, 1913.
- KENNAN**, George F. (author and former diplomat); Milwaukee, Wis., Feb. 16, 1904.
- KENNEDY**, Arthur (actor); Worcester, Mass., Feb. 17, 1914.
- KENNEDY**, Robert F. (U. S. govt. official); Brookline, Mass., Nov. 20, 1925.
- KENT**, Rockwell (painter); Tarrytown Heights, N. Y., June 21, 1882.
- KERENSKY**, Alexander (former Russian Premier); Simbirsk, Rus., 1881.
- KEROUAC**, Jack (novelist); Lowell, Mass., 1922.
- KERR**, Deborah (actress); Helensburgh, Scot., Sept. 30, 1921.
- KEYES**, Frances Parkinson (novelist); Univ. of Va., July 21, 1885.
- KHACHATURIAN**, Aram (composer); Tiflis, Rus., June 6, 1903.
- KHRUSHCHEV**, Nikita S. (Premier, U.S.S.R.); Kalinovka, Rus., Apr. 17, 1894.

- KIDD, Michael (choreographer); Brooklyn, N. Y., 1917.
- KIEPURA, Jan (tenor); Sosnowiec, Pol., May 16, 1902.
- KIERAN, John (author); New York City, Aug. 2, 1892.
- KILGALLEN, Dorothy (columnist); Chicago, Ill., July 3, 1913.
- KILLEBREW, Harmon (baseball player); Payette, Idaho, June 29, 1936.
- KILPATRICK, John Reed (sports executive); New York City, June 15, 1889.
- KING, Dennis (actor); Coventry, Eng., Nov. 2, 1897.
- KING, Henry (movie director); Christianburg, Va., Jan. 24, 1896.
- KINGSLEY, Sidney (Sidney Kirschner) (dramatist); New York City, Oct. 18, 1906.
- KIPNIS, Alexander (basso); Ukraine, Feb. 1, 1896.
- KIRK, Grayson (educator); Jeffersonville, Ohio, Oct. 12, 1903.
- KIRK, Lisa (singer); Charleroi, Pa.
- KIRKPATRICK, Ralph (harpsichordist); Leominster, Mass., June 10, 1911.
- KIRSTEN, Dorothy (soprano); Montclair, N. J., July 6, 1919.
- KITT, Eartha (singer & actress); North, S. C., Jan. 26, 1928.
- KLUSZEWSKI, Ted (Theodore) (baseball player); Argo, Ill., Sept. 10, 1924.
- KNIGHT, John S. (publisher); Bluefield, W. Va., Oct. 26, 1894.
- KNOPF, Alfred A. (publisher); New York City, Sept. 12, 1892.
- KODÁLY, Zoltán (composer); Kecskemét, Hung., Dec. 16, 1882.
- KOESTLER, Arthur (novelist); Budapest, Hung., Sept. 5, 1905.
- KOKOSCHKA, Oskar (painter); Pöchlarn, Aus., Mar. 1, 1886.
- KOSTELANETZ, Andre (orchestra conductor); Petrograd, Rus., Dec. 22, 1901.
- KOVACS, Ernie (comedian); Trenton, N. J., Jan. 23, 1919.
- KRAMER, John A. (tennis player); Las Vegas, Nev., Aug. 1, 1921.
- KRAMER, Stanley E. (movie producer); New York City, Sept. 29, 1913.
- KREISLER, Fritz (violinist); Vienna, Aus., Feb. 2, 1875.
- KROCK, Arthur (journalist); November 16, 1886.
- KRUPA, Gene (drummer & band leader); Chicago, Ill., Jan. 15, 1909.
- KUBELIK, Rafael (orchestra conductor); Bychory, Bohemia, June 29, 1914.
- KUENN, Harvey (baseball player); Milwaukee, Wis., Dec. 4, 1930.
- KULLMAN, Charles (tenor); New Haven, Conn., Jan. 13, 1903.
- KURTZ, Efrem (orchestra conductor); St. Petersburg, Rus., Nov. 7, 1900.
- LABINE, Clem (Clement) (baseball player); Lincoln, R. I., Aug. 6, 1926.
- LADD, Alan (actor); Hot Springs, Ark., Sept. 3, 1913.
- LA FARGE, Oliver (author & anthropologist); New York City, Dec. 19, 1901.
- LAHR, Bert (Irving Lahrhelm) (comedian); New York City, Aug. 13, 1895.
- LAINE, Frankie (Frank Paul LoVecchio) (singer); Chicago, Ill., Mar. 30, 1913.
- LAMARR, Hedy (actress); Vienna, Aus.
- LAMAS, Fernando (actor); Buenos Aires, Arg., Jan. 9.
- LAMOUR, Dorothy (actress); New Orleans, La., Dec. 10, 1914.
- LANCASTER, Burt (actor); New York City, Nov. 2, 1913.
- LANCHESTER, Elsa (Elsa Sullivan) (actress); London, Eng., Oct. 28, 1902.
- LANDY, John (mile runner); Australia, Apr. 4, 1930.
- LANG, Fritz (movie director); Vienna, Aus., Dec. 5, 1890.
- LANZA, Mario (Alfredo Arnold Cocozza) (tenor); So. Philadelphia, Pa., Jan. 31, 1921.
- LA ROSA, Julius (singer); Brooklyn, N. Y., Jan. 2, 1930.
- LARSON, Don (baseball player); Michigan City, Ind., Aug. 7, 1929.
- LAUGHTON, Charles (actor); Scarborough, Eng., July 1, 1899.
- LAWFORD, Peter (actor); London, Eng., Sept. 7, 1923.
- LAWRENCE, David (journalist); Philadelphia, Pa., Dec. 25, 1888.
- LAWRENCE, Marjorie (soprano); Deans Marsh, Austr., Feb. 17, 1909.
- LEAHY, Frank (football coach); O'Neill, Nebr., Aug. 21, 1908.
- LEAN, David (movie director); Croydon, Eng., Mar. 25, 1908.
- LE CORBUSIER (Charles-Édouard Jeanneret) (architect); La Chaux De Fonds, Switz., Oct. 6, 1887.
- LEE, Gypsy Rose (Rose Hovik) (entertainer); Seattle, Wash., Feb. 9, 1914.
- LEE, Peggy (Norma Egstrom) (singer); Jamestown, N. Dak., May 26, 1920.
- LE GALLIENNE, Eva (actress & director); London, Eng., Jan. 11, 1899.
- LEHMAN, Herbert H. (former U. S. Senator); New York City, Mar. 28, 1878.
- LEHMANN, Lotte (soprano); Perleberg, Ger., July 2, 1885.
- LEIGH, Janet (Jeanette Morrison) (actress); Merced, Calif., July 6, 1927.
- LEIGH, Vivien (Vivien Mary Hartley) (actress); Darjeeling, India, Nov. 5, 1913.
- LEIGHTON, Margaret (actress); Birmingham, Eng., Feb. 26, 1922.
- LEINSDORF, Erich (orchestra conductor); Vienna, Aus., Feb. 4, 1912.
- LEMMON, Jack (actor); Boston, Mass., Feb. 8, 1925.
- LENER, Alan Jay (librettist); New York City, Aug. 31, 1918.
- LENER, Max (social writer); Minsk, Rus., Dec. 20, 1902.
- LE ROY, Mervyn (movie producer & director); San Francisco, Calif., Oct. 15, 1900.
- LEVANT, Oscar (pianist); Pittsburgh, Pa., Dec. 27, 1906.
- LEVENE, Sam (actor); New York City, 1907.
- LEVI, Carlo (novelist); Turin, It., Nov. 29, 1902.
- LEVIN, Herman (theatrical producer); Philadelphia, Pa., Mar. 1, 1908.
- LEWIS, Fulton, Jr. (columnist); Washington, D. C., Apr. 30, 1903.

- LEWIS, Jerry (comedian); Newark, N. J., Mar. 16, 1926.
- LEWIS, Joe E. (comedian); New York City.
- LEWIS, John L. (labor leader); Lucas, Iowa, Feb. 12, 1880.
- LEWIS, Ted (band leader); Circleville, Ohio.
- LEY, Willy (science writer); Berlin, Ger., Oct. 2, 1906.
- LIBERACE (Wladziu Liberace) (pianist); West Allis, Wis., May 16, 1919.
- LILLIE, Beatrice (actress); Toronto, Can., May 29, 1898.
- LIN Yutang (philosopher); Changchow, China, Oct. 10, 1895.
- LINDBERGH, Anne Morr  w (writer); Englewood, N. J., 1907.
- LINDBERGH, Charles A. (aviator); Detroit, Mich., Feb. 4, 1902.
- LINDSAY, Howard (dramatist); Waterford, N. Y., Mar. 29, 1889.
- LINKLETTER, Art (actor); Moose Jaw, Sask., Can., July 17, 1912.
- LIPCHITZ, Jacques (sculptor); Druskieniki, Lith., Aug. 22, 1891.
- LIPPMANN, Walter (author & journalist); New York City, Sept. 23, 1889.
- LITTLE, Lou (football coach); Leominster, Mass., Dec. 6, 1893.
- LIVESY, Roger (actor); Barry, Wales, June 25, 1906.
- LLEWELLYN, Richard (novelist); St. David's, Wales.
- LLOYD, Harold (comedian); Burchard, Nebr., Apr. 20, 1894.
- LLOYD, Selwyn (British diplomat); West Kirby, Eng., July 28, 1904.
- LOCKWOOD, Margaret (actress); Karachi, India, Sept. 15, 1916.
- LODGE, Henry Cabot, Jr. (U. N. Delegate, U. S.); Nahant, Mass., July 5, 1902.
- LOESSER, Frank (song writer); New York City, June 29, 1910.
- LOEWE, Frederick (song writer); Vienna, Aus., June 10, 1904.
- LOGAN, Joshua (director & dramatist); Texarkana, Tex., Oct. 5, 1908.
- LOLLOBRIGIDA, Gina (actress); Sublaco, It., 1928.
- LOMBARDO, Guy (band leader); London, Can., June 19, 1902.
- LOOS, Anita (novelist); Sisson, Calif., Apr. 26, 1893.
- LOPEZ, Al (baseball manager); Tampa, Fla., Aug. 20, 1908.
- LOPEZ, Vincent (band leader); Brooklyn, N. Y., Dec. 10, 1898.
- LOREN, Sophia (Sofia Scicolone) (actress); Rome, It., Sept. 20, 1934.
- LORRE, Peter (actor); Rosenberg, Hung., June 26, 1904.
- LOUIS, Joe (Joe Louis Barrow) (boxer); Lexington, Ala., May 13, 1914.
- LOVEJOY, Frank (actor); New York City, Mar. 28.
- LOW, David (cartoonist); Dunedin, N. Z., Apr. 7, 1891.
- LOWELL, Robert (poet); Boston, Mass., Mar. 1, 1917.
- LOY, Myrna (Myrna Williams) (actress); near Helena, Mont., Aug. 2, 1905.
- LUCE, Clare Boothe (playwright and former diplomat); New York City, Apr. 10, 1903.
- LUCE, Henry R. (publisher); Shantung, China, Apr. 3, 1898.
- LUKAS, Paul (actor); Budapest, Hung., May 26, 1895.
- LUNT, Alfred (actor); Milwaukee, Wis., Aug. 19, 1893.
- LUPINO, Ida (actress); London, Eng., Feb. 4, 1918.
- MacARTHUR, Douglas (U. S. general); Little Rock Barracks, Ark., Jan. 26, 1880.
- MacDONALD, Jeanette (soprano); Philadelphia, Pa., June 18, 1907.
- MacLEISH, Archibald (poet); Glencoe, Ill., May 7, 1892.
- MACMILLAN, Harold (British Prime Minister); London, Eng., Feb. 10, 1894.
- MacMURRAY, Fred (actor); Kankakee, Ill., Aug. 30, 1908.
- MacRAE, Gordon (singer); East Orange, N. J., Mar. 12, 1921.
- MADISON, Guy (Robert Moseley) (actor); Bakersfield, Calif., Jan. 19, 1922.
- MAGNANI, Anna (actress); Rome, It., Mar. 7, 1908.
- MAILER, Norman (novelist); Long Branch, N. J., Jan. 31, 1923.
- MAIN, Marjorie (Mary Tomlinson Krebs) (actress); Acton, Ind., Feb. 24, 1890.
- MAKARIOS III, Archbishop (Michael Christedoulos Mouskos) (Greek Orthodox prelate); Ano Panayia, Paphos, Cyprus, Aug. 13, 1913.
- MALDEN, Karl (actor); Chicago, Ill., Mar. 22, 1913.
- MALENKOV, Georgi M. (Soviet statesman); Orenburg, Rus., Jan. 8, 1902.
- MALONE, Dorothy (actress) Chicago, Ill., Jan. 30, 1925.
- MALRAUX, Andr   (novelist); Paris, Fr., Nov. 3, 1901.
- MANGANO, Silvana (actress); Rome, It.
- MANGRUM, Lloyd (golfer); Dallas, Tex., Aug. 1, 1914.
- MANKIEWICZ, Joseph L. (movie director); Wilkes-Barre, Pa., Feb. 11, 1909.
- MANSFIELD, Jayne (Jane Palmer) (actress); Bryn Mawr, Pa., Apr. 19, 1933.
- MANTLE, Mickey (baseball player); Spavinau, Okla., Oct. 20, 1931.
- MANTOVANI, Annunzio (orchestra conductor); Venice, 1905.
- MAO Tse-tung (Chmn. of People's Council, Comm. China); Shao Shan, China, 1893.
- MARCEAU, Marcel (mime); Strasbourg, Fr., Mar. 22, 1923.
- MARCH, Fredric (Frederick Bickel) (actor); Racine, Wis., Aug. 31, 1897.
- MARCH, Hal (Harold Mendelson) (actor); San Francisco, Calif., Apr. 22, 1920.
- MARCHIANO, Rocky (Rocco Marchegiano) (boxer); Brockton, Massachusetts, September 1, 1924.
- MARITAIN, Jacques (philosopher); Paris, Fr., Nov. 18, 1882.
- MARKOVA, Alicia (ballerina); London, Eng., Dec. 1, 1910.
- MARQUAND, John P. (novelist); Wilmington, Del., Nov. 10, 1893.

- MARSHALL, George C.** (U. S. general); Uniontown, Pa., Dec. 31, 1880.
- MARSHALL, Herbert** (actor); London, Eng., May 23, 1890.
- MARSHALL, Thurgood** (lawyer); Baltimore, Md., July 2, 1908.
- MARTIN, Dean** (comedian); Steubenville, Ohio, June 7, 1917.
- MARTIN, Joseph W., Jr.** (U. S. Representative, Mass.); No. Attleboro, Mass., Nov. 3, 1884.
- MARTIN, Mary** (actress); Weatherford, Tex., Dec. 1, 1914.
- MARTIN, Tony** (actor & singer); San Francisco, Calif., Dec. 25, 1914.
- MARTIN, William McChesney, Jr.** (financial executive); St. Louis, Mo., Dec. 17, 1906.
- MARTINELLI, Giovanni** (tenor); Montagnana, It., Oct. 22, 1885.
- MARX, Chico** (Leonard) (comedian); New York City, Mar. 22, 1891.
- MARX, Groucho** (Julius) (comedian); New York City, Oct. 2, 1895.
- MARX, Harpo** (Arthur) (comedian); New York City, Nov. 23, 1893.
- MASEFIELD, John** (poet); Ledbury, Eng., June 1, 1878.
- MASON, James** (actor); Huddersfield, Eng., May 15, 1909.
- MASSEY, Raymond** (actor); Toronto, Ont., Can., Aug. 30, 1896.
- MASSEY, Vincent** (Canadian statesman); Toronto, Ont., Can., Feb. 20, 1887.
- MASSINE, Léonide** (choreographer); Moscow, Rus., Aug. 9, 1896.
- MATHIAS, Bob** (athlete); Tulare, Calif., Nov. 17, 1930.
- MATTHEWS, Ed** (Edwin) (baseball player); Texarkana, Tex., Oct. 13, 1931.
- MATURE, Victor** (actor); Louisville, Ky., Jan. 19, 1916.
- MAUGHAM, William Somerset** (novelist); Paris, Fr., Jan. 25, 1874.
- MAUROIS, André** (Émile Herzog) (novelist); Elbeuf, Fr., July 26, 1885.
- MAXWELL, Elsa** (columnist); Keokuk, Iowa, May 24, 1883.
- MAYER, Dick** (golfer); Stamford, Conn., Aug. 29, 1922.
- MAYNOR, Dorothy** (soprano); Norfolk, Va., Sept. 3, 1910.
- MAYS, Willie** (baseball player); Fairfield, Ala., May 6, 1931.
- McBRIDE, Mary Margaret** (author); Paris, Mo., Nov. 16, 1899.
- McCAREY, Leo** (movie director); Los Angeles, Calif., Oct. 3, 1898.
- McCARTHY, Joe** (baseball manager); Philadelphia, Pa., Apr. 21, 1887.
- McCLOY, John J.** (banker); Philadelphia, Pa., Mar. 31, 1895.
- McCREA, Joel** (actor); Los Angeles, Calif., Nov. 5, 1906.
- McDONALD, David J.** (labor leader); Pittsburgh, Pa., Nov. 22, 1902.
- McDONALD, Marie** (Marie Frye) (actress); Burgin, Ky.
- McDOWALL, Roddy** (actor); London, Eng., Sept. 17, 1928.
- McGEE, Fibber** (James Jordan) (actor); Peoria, Ill., Nov. 16, 1896.
- McGEE, Molly** (Marian Jordan) (actress); Peoria, Ill., Apr. 15, 1898.
- McGUIRE, Dorothy** (actress); Omaha, Nebr., June 14, 1919.
- McKENNA, Siobhan** (actress); Belfast, Ire., May 24, 1923.
- McLAGLEN, Victor** (actor); Tunbridge Wells, Eng., Dec. 11, 1886.
- MEAD, Margaret** (anthropologist); Philadelphia, Pa., Dec. 16, 1901.
- MEANY, George** (labor leader); New York City, Aug. 16, 1894.
- MEDINA, Harold R.** (U. S. jurist); Brooklyn, N. Y., Feb. 16, 1888.
- MEEKER, Ralph** (Ralph Rathgeber) (actor); Minneapolis, Minn., Nov. 21, 1920.
- MEIR, Golda** (Golda Myerson) (Israeli stateswoman); Kiev, Rus.
- MEITNER, Lise** (physicist); Vienna, Aus., Nov. 7, 1878.
- MENDÈS-FRANCE, Pierre** (French statesman); Paris, Fr., Jan. 11, 1905.
- MENJOU, Adolphe** (actor); Pittsburgh, Pa., Feb. 18, 1890.
- MENOTTI, Gian-Carlo** (composer); Cadegliano, It., July 7, 1911.
- MENUHIN, Yehudi** (violinist); New York City, Apr. 22, 1916.
- MENZIES, Robert Gordon** (Prime Minister, Australia); Jeparit, Australia, Dec. 20, 1894.
- MERCER, Johnny** (singer & song writer); Savannah, Ga., Nov. 18, 1909.
- MEREDITH, Burgess** (actor); Cleveland, Ohio, Nov. 16, 1908.
- MERMAN, Ethel** (Ethel Zimmerman) (actress & singer); Astoria, N. Y., Jan. 16, 1909.
- MERRILL, Robert** (baritone); Brooklyn, N. Y., June 4, 1919.
- MERTON, Thomas** (poet & religious writer); Prades, Fr., Jan. 31, 1915.
- MESTA, Perle** (hostess); Sturgis, Mich., 1891.
- MESTROVIĆ, Ivan** (sculptor); Vrpolje, Yugos., Aug. 15, 1883.
- METALIOUS, Grace** (author); Manchester, N. H., Sept. 8, 1924.
- MICHENER, James A.** (novelist); New York City, Feb. 3, 1907.
- MIDDLECOFF, Cary** (golfer); Halls, Tenn., Jan. 6, 1921.
- MIELZINER, Jo** (stage designer); Paris, Fr., Mar. 19, 1901.
- MIKOYAN, Anastas I.** (Soviet statesman); Sanain, Armenia, Nov. 25, 1895.
- MILANOV, Zinka** (soprano); Zagreb, Yugos., May 17, 1908.
- MILHAUD, Darius** (composer); Aix-en-Provence, Fr., Sept. 4, 1892.
- MILLAND, Ray** (actor); Neath, Wales, Jan. 3, 1907.
- MILLER, Arthur** (dramatist); New York City, 1915.
- MILLER, Gilbert** (theatrical producer); New York City, July 3, 1884.
- MILSTEIN, Nathan** (violinist); Odessa, Russ., Dec. 31, 1904.
- MINNELLI, Vincente** (movie director); Chicago, Ill., Feb. 28.
- MIRÓ, Joan** (painter); Barcelona, Sp., Apr. 21, 1893.

- MITCHELL**, Thomas (actor); Elizabeth, N. J., July 11, 1895.
- MITCHUM**, Robert (actor); Bridgeport, Conn., Aug. 6, 1917.
- MITROPOULOS**, Dimitri (orchestra conductor); Athens, Gr., Feb. 18, 1896.
- MOISEWITSCH**, Benno (pianist); Odessa, Rus., Feb. 22, 1890.
- MOLLET**, Guy (French statesman); Flers, Orne, Fr., Dec. 31, 1905.
- MOLOTOV**, Vyacheslav M. (V. M. Skryabin) (Soviet statesman); Kukarka, Rus., Mar. 9, 1890.
- MONROE**, Marilyn (Norma Jean Mortenson) (actress); Los Angeles, June 1, 1926.
- MONROE**, Vaughn (band leader); Akron, Ohio, Oct. 7, 1912.
- MONSARRAT**, Nicholas (novelist); Liverpool, Eng., Mar. 22, 1910.
- MONTALBAN**, Ricardo (actor); Mexico City, Mex., Nov. 25.
- MONTEUX**, Pierre (orchestra conductor); Paris, Fr., Apr. 4, 1875.
- MONTGOMERY**, Robert (Henry, Jr.) (actor); Beacon, N. Y., May 21, 1904.
- MONTGOMERY OF ALAMEIN**, 1st Viscount of Hindhead (Sir Bernard Law Montgomery) (British field marshal); Donegal, Ire., Nov. 17, 1887.
- MOORE**, Archie (boxer); Collinsville, Ill., Dec. 13, 1916.
- MOORE**, Garry (Thomas Garrison Morfit) (comedian); Baltimore, Md., Jan. 31, 1915.
- MOORE**, Henry (sculptor); Castleford, Eng., July 30, 1898.
- MOORE**, Marianne (poet); Kirkwood, Mo., Nov. 15, 1887.
- MOORE**, Terry (Helen Koford) (actress); Los Angeles, Calif., Jan. 7, 1929.
- MOORE**, Victor (actor); Hammonton, N. J., Feb. 24, 1876.
- MOOREHEAD**, Agnes (actress); Clinton, Mass., Dec. 6, 1906.
- MORINI**, Erica (violinist); Vienna, Aus., Jan. 5, 1910.
- MORLEY**, Robert (actor); Wiltshire, Eng., May 26, 1908.
- MOSES**, Grandma (Anna Mary Robertson) (painter); Greenwich, N. Y., Sept. 7, 1860.
- MOSES**, Robert (NYC public official); New Haven, Conn., Dec. 18, 1888.
- MUMFORD**, Lewis (author); Flushing, N. Y., Oct. 19, 1895.
- MUNCH**, Charles (orchestra conductor); Strasbourg, Ger., Sept. 1891.
- MUNI**, Paul (Muni Weisenfreund) (actor); Lemberg, Aus., Sept. 22, 1895.
- MUNSEL**, Patrice (soprano); Spokane, Wash., May 14, 1925.
- MURPHY**, George (actor); New Haven, Conn., July 4, 1904.
- MURRAY**, Arthur (dancing teacher); New York City, Apr. 4, 1895.
- MURRAY**, Ken (Don Court) (actor); New York City, July 14, 1903.
- MURRAY**, Thomas E. (business executive); Albany, N. Y., June 20, 1891.
- MURROW**, Edward R. (radio commentator); Greensboro, N. C.
- MUSIAL**, Stan (baseball player); Donora, Pa., Nov. 21, 1920.
- NAISH**, J. Carrol (actor); New York City, Jan. 21, 1900.
- NASH**, Ogden (poet); Rye, N. Y., Aug. 19, 1902.
- NASSER**, Gamal Abdel (President, Egypt); Egypt, c.1918.
- NATWICK**, Mildred (actress); Baltimore, Md., June 19, 1908.
- NEHRU**, Jawaharlal (Prime Minister, India); Allahabad, India, Nov. 14, 1889.
- NELSON**, David (actor); Oct. 24, 1936.
- NELSON**, Harriet Hilliard (Peggy Lou Snyder) (actress & singer); Des Moines, Iowa.
- NELSON**, Ozzie (Oswald) (actor & band leader); Jersey City, N. J., 1906.
- NELSON**, Ricky (Eric) (actor & singer); Teaneck, N. J., May 8, 1940.
- NENNI**, Pietro (Italian Socialist leader); Faenza, It., Feb. 9, 1891.
- NEVINS**, Allan (historian); Camp Point, Ill., May 20, 1890.
- NEWCOMBE**, Don (baseball player); Madison, N. J., July 14, 1926.
- NEWHOUSE**, Samuel I. (newspaperman); New York City, May 24, 1895.
- NGO Dinh Diem** (President, Rep. of Vietnam); Quang Binh, Annam, 1901.
- NIEBUHR**, Reinhold (theologian); Wright City, Mo., June 21, 1892.
- NIVEN**, David (actor); Kirriemuir, Scot., Mar. 1, 1910.
- NIXON**, Richard M. (Vice President, U. S.); Yorba Linda, Calif., Jan. 9, 1913.
- NKRUMAH**, Kwame (Prime Minister, Ghana); Nkroful, Br. W. Af., 1909.
- NOGUCHI**, Isamu (sculptor); Los Angeles, Calif., Nov. 7, 1904.
- NOLAN**, Lloyd (actor); San Francisco, Calif., Aug. 11, 1902.
- NORRIS**, Kathleen (novelist); San Francisco, Calif., July 16, 1880.
- NORSTAD**, Gen. Lauris (Supr. Comdr. NATO); Minneapolis, Minn., Mar. 24, 1907.
- NOVAES**, Guiomar (pianist); São João de Boa Vista, Braz., Feb. 28, 1895.
- NOVAK**, Kim (Marilyn Novak) (actress); Chicago, Ill., Feb. 13, 1933.
- NOVOTNA**, Jarmila (soprano); Prague, Czechoslovakia, Sept. 23, 1911.
- NUGENT**, Elliott (author, actor & director); Dover, Ohio, Sept. 20, 1899.
- OBBERON**, Merle (Merle O'Brien Thompson) (actress); Tasmania, Feb. 19, 1911.
- O'BRIAN**, Hugh (Hugh J. Krampe) (actor); Rochester, N. Y., Apr. 19, 1925.
- O'BRIEN**, Edmond (actor); New York City, Sept. 10, 1915.
- O'BRIEN**, Margaret (Angela Maxine O'Brien) (actress); San Diego, California, Jan. 15, 1937.
- O'BRIEN**, Pat (actor); Milwaukee, Wis., Nov. 11, 1899.
- O'CASEY**, Sean (dramatist); Dublin, Ire., 1881.
- O'CONNOR**, Donald (actor); Chicago, Ill., Aug. 28, 1925.
- ODETS**, Clifford (dramatist); Philadelphia, Pa., July 18, 1906.
- O'HARA**, John (novelist); Pottsville, Pa., Jan. 31, 1905.

- O'HARA, Maureen (Maureen FitzSimons) (actress); Dublin, Ire., Aug. 17, 1921.
- OISTRACH, David (violinist); Odessa, Russ., 1908.
- O'KEEFE, Georgia (painter); Sun Prairie, Wis., Nov. 15, 1887.
- O'KELLY, Sean T. (Irish statesman); Dublin, Ire., Aug. 25, 1882.
- OLAF V (King, Norway); Sandringham, Eng., July 2, 1903.
- OLIVIER, Sir Laurence (actor); Dorking, Eng., May 22, 1907.
- OPPENHEIMER, J. Robert (physicist); New York City, Apr. 22, 1904.
- ORMANDY, Eugene (orchestra conductor); Budapest, Hung., Nov. 18, 1899.
- OSBORNE, John (dramatist); London, Eng., Dec. 12, 1929.
- OWENS, Jesse (sprinter); Decatur, Ala., Sept. 12, 1913.
- PAAR, Jack (comedian); Canton, Ohio, May 1, 1918.
- PAGE, Patti (Clara Ann Fowler) (singer); Claremore, Okla., 1927.
- PALANCE, Jack (actor); Latimer, Pa., Feb. 18, 1920.
- PALEY, William S. (broadcasting executive); Chicago, Ill., Sept. 28, 1901.
- PALMER, Lilli (actress); Posen, Germany, May 27, 1917.
- PARKER, Dorothy (poet & story writer); West End, N. J., Aug. 22, 1893.
- PARKER, Eleanor (actress); Cedarville, Ohio, June 26, 1922.
- PARSONS, Louella O. (columnist); Freeport, Ill., Aug. 6, 1893.
- PASTERNAK, Boris (author); Moscow, Russ., Feb. 10, 1890.
- PASTERNAK, Joseph (movie producer); Silagy-Somlyo, Rum., Sept. 19, 1901.
- PATTERSON, Floyd (boxer); Waco, N. C., Jan. 4, 1935.
- PAUL I (King, Greece); Athens, Gr., Dec. 14, 1901.
- PAULING, Linus Carl (chemist); Portland, Oreg., Feb. 28, 1901.
- PEALE, Norman Vincent (clergyman & author); Bowersville, Ohio, May 31, 1898.
- PEARSON, Drew (columnist); Evanston, Ill., Dec. 13, 1897.
- PEARSON, Hesketh (author); Hawford, Worces., Eng., Feb. 20, 1887.
- PEARSON, Lester B. (Canadian statesman); Toronto, Ont., Can., Apr. 23, 1897.
- PEATIE, Donald Culross (nature writer); Chicago, Ill., June 21, 1898.
- PECK, Gregory (actor); La Jolla, Calif., Apr. 5, 1916.
- PEERCE, Jan (tenor); New York City, 1904.
- PEGLER, Westbrook (columnist); Minneapolis, Minn., Aug. 2, 1894.
- PERELMAN, S. J. (Sidney J.); (humorist); Brooklyn, N. Y., Feb. 1, 1904.
- PERKINS, Tony (Anthony) (actor); New York City, Apr. 14, 1932.
- PERÓN, Juan D. (former President, Argentina); nr. Lobos, Arg., Oct. 8, 1895.
- PETERS, Roberta (Roberta Peterman) (soprano); New York City, May 4, 1930.
- PETRI, Egon (pianist); Hanover, Ger., Mar. 23, 1881.
- PETRILLO, James C. (labor leader); Chicago, Ill., Mar. 16, 1892.
- PHILIP (Philip Mountbatten) (Duke of Edinburgh); Corfu, June 10, 1921.
- PIATIGORSKY, Gregor (cellist); Ekaterinoslav, Russ., Apr. 17, 1903.
- PICASSO, Pablo (painter); Málaga, Sp., Oct. 25, 1881.
- PICCARD, Auguste (physicist); Basel, Switz., Jan. 28, 1884.
- PICCARD, Jean Félix (aeronautics engineer); Basel, Switz., Jan. 28, 1884.
- PICKFORD, Mary (Gladys Mary Smith) (actress); Toronto, Can., Apr. 8, 1893.
- PIDGEON, Walter (actor); East St. John, N. B., Can., Sept. 23, 1898.
- PIERCE, Billy (baseball player); Detroit, Mich., Apr. 2, 1927.
- PITTS, Zasu (actress); Parsons, Kans., Jan. 3, 1898.
- PODRES, Johnny (baseball player); Witherbee, N. Y., Sept. 30, 1932.
- POITIER, Sidney (actor); Miami, Fla., Feb. 20, 1924.
- PONS, Lily (soprano); Cannes, Fr., Apr. 13, 1904.
- PORTER, Cole (song writer); Peru, Ind., June 9, 1893.
- PORTER, Katherine Anne (story writer); Indian Creek, Tex., May 15, 1894.
- POST, Emily (author on etiquette); Baltimore, Md., Oct. 3, 1873.
- POULENC, Francis (composer); Paris, Fr., Jan. 7, 1899.
- POWELL, Dick (actor); Mt. View, Ark., Nov. 14, 1904.
- POWELL, William (actor); Pittsburgh, Pa., July 29, 1892.
- PREMINGER, Otto (movie producer & director); Vienna, Aus., Dec. 5, 1906.
- PRESLEY, Elvis (singer); Tupelo, Miss., Jan. 8, 1935.
- PRESTON, Robert (Robert Preston Meservey) (actor); Newton Highlands, Mass., 1918.
- PRICE, George (cartoonist); Coytesville, N. J., June 9, 1901.
- PRICE, Vincent (actor); St. Louis, Mo., May 27, 1911.
- PRIESTLEY, J. B. (John B.) (novelist & dramatist); Bradford, Eng., Sept. 13, 1894.
- PRIMROSE, William (violinist); Glasgow, Scot., Aug. 23, 1904.
- PUSEY, Nathan M. (educator); Council Bluffs, Iowa, Apr. 4, 1907.
- QUINN, Anthony (actor); Chihuahua, Mex., Apr. 21, 1916.
- RABI, Isidor (physicist); Austria, July 29, 1898.
- RAFT, George (actor); New York City, Sept. 27, 1927.
- RAINIER III (Sovereign Prince of Monaco); Monaco, May 31, 1923.
- RAINS, Claude (actor); London, Eng., Nov. 10, 1889.
- RANK, J. Arthur (movie producer); Hull, Eng., Dec. 23, 1888.
- RATHBONE, Basil (actor); Johannesburg, So. Af., June 13, 1892.
- RATOFF, Gregory (movie director); St. Petersburg, Russ., Apr. 20, 1897.

- RATTIGAN**, Terence (dramatist); London, Eng., June 10, 1911.
- RAY**, Johnnie (singer); Roseburg, Oreg., Jan. 10, 1927.
- RAYBURN**, Sam (Speaker of House, U. S.); Roane Co., Tenn., Jan. 6, 1882.
- RAYE**, Martha (Margie Yvonne Reed) (actress); Butte, Mont., Aug. 27, 1916.
- REAGAN**, Ronald (actor); Tampico, Ill., Feb. 6, 1911.
- REDGRAVE**, Michael (actor); Bristol, Eng., Mar. 20, 1908.
- REESE**, Pee Wee (Harold) (baseball player); Ekron, Ky., July 23, 1919.
- REID**, Helen Rogers (publisher); Appleton, Wis., Nov. 23, 1882.
- REINER**, Carl (actor); New York City, Mar. 20, 1922.
- REINER**, Fritz (orchestra conductor); Budapest, Hung., Dec. 19, 1888.
- REMARQUE**, Erich Maria (novelist); Osnabrück, Ger., June 22, 1898.
- RENNIE**, Michael (actor); Bradford, Yorks., Eng., Aug. 25, 1909.
- RESTON**, James, (journalist); Clydebank, Scot., Nov. 3, 1909.
- REUTHER**, Walter P. (labor leader); Wheeling, W. Va., Sept. 1, 1907.
- REYNOLDS**, Debbie (Mary Frances Reynolds) (actress); El Paso, Tex., Apr. 1, 1932.
- RHEE**, Syngman (President, South Korea); Seoul, Kor., Mar. 26, 1875.
- RICE**, Elmer (Elmer Reizenstein) (dramatist); New York City, Sept. 28, 1892.
- RICHARD**, Maurice (hockey player); Montreal, Que., Can., Aug. 4, 1921.
- RICHARDS**, Paul (baseball manager); Waxahachie, Tex., Nov. 21, 1908.
- RICHARDSON**, Sir Ralph (actor); Cheltenham, Glos., Eng., Dec. 19, 1902.
- RICKENBACKER**, Eddie (Edward V.) (airline executive); Columbus, Ohio, Oct. 8, 1890.
- RICKEY**, Branch (baseball executive); Stockdale, Ohio, Dec. 20, 1881.
- RICKOVER**, Vice Adm. Hyman G. (U. S. naval officer); Russia, Jan. 27, 1900.
- RIDGWAY**, Gen. Matthew B. (U. S. Army officer); Ft. Monroe, Va., Mar. 3, 1895.
- RITCHARD**, Cyril (actor); Sydney, Australia, Dec. 1, 1898.
- RITTER**, Thelma (actress); Brooklyn, N. Y., Feb. 14, 1905.
- RIZZUTO**, Phil (baseball player and announcer); New York City, Sept. 25, 1918.
- ROARK**, Helen Wills Moody (tennis player); Centerville, Calif., Oct. 6, 1905.
- ROBBINS**, Jerome (Jerome Rabinowitz) (choreographer); NYC, Oct. 11, 1918.
- ROBERTS**, Robin (baseball player); Springfield, Ill., Sept. 30, 1926.
- ROBESON**, Paul (baritone); Princeton, N. J., Apr. 9, 1898.
- ROBINSON**, Edward G. (Emanuel Goldenberg) (actor); Bucharest, Rum., Dec. 12, 1893.
- ROBINSON**, Frank (baseball player); Beaumont, Tex., Aug. 31, 1935.
- ROBINSON**, Jackie (baseball player); Cairo, Ga., Jan. 31, 1919.
- ROBINSON**, Ray (boxer); Detroit, Mich., May 3, 1920.
- ROBSON**, Flora (actress); South Shields, Eng., Mar. 28, 1902.
- ROCHESTER** (Eddie Anderson) (comedian); Oakland, Calif., Sept. 18, 1905.
- ROCKEFELLER**, David (business executive); New York City, June 12, 1915.
- ROCKEFELLER**, John D., Jr. (industrialist); Cleveland, Ohio, Jan. 29, 1874.
- ROCKEFELLER**, John D., 3rd (business executive); New York City, Mar. 21, 1906.
- ROCKEFELLER**, Laurance S. (business executive); New York City, May 26, 1910.
- ROCKEFELLER**, Winthrop (business executive); New York City, May 1, 1912.
- ROCKWELL**, Norman (illustrator); New York City, Feb. 3, 1894.
- RODGERS**, Richard (song writer); New York City, June 28, 1902.
- ROGERS**, Buddy (Charles) (actor); Olathe, Kans., Aug. 13, 1904.
- ROGERS**, Ginger (Virginia McMath) (actress); Independence, Mo., July 16, 1911.
- ROGERS**, Roy (Leonard Slye) (actor); Cincinnati, Ohio, Nov. 5, 1912.
- ROGERS**, Will, Jr. (actor); New York City, Oct. 20, 1911.
- ROMAINS**, Jules (Louis Farigoule) (novelist); Saint-Julien Chaptell, Fr., Aug. 26, 1885.
- ROME**, Harold (song writer); Hartford, Conn., May 27, 1908.
- ROMERO**, Cesar (actor); New York City, Feb. 15, 1907.
- ROMULO**, Carlos P. (Philippine statesman); Manila, Phil., Jan. 14, 1899.
- ROONEY**, Mickey (Joe Yule, Jr.) (actor); Brooklyn, N. Y., Sept. 23, 1922.
- ROOSEVELT**, Eleanor (U. S. stateswoman); New York City, Oct. 11, 1884.
- ROSE**, Billy (William S. Rosenberg) (stage producer); New York City, September 6, 1899.
- ROSEWALL**, Ken (tennis player); Sydney, NSW, Australia, Nov. 2, 1934.
- ROSSELLINI**, Roberto (movie director); Rome, It., May 8, 1906.
- RUBINSTEIN**, Artur (pianist); Warsaw, Pol., Jan. 28, 1889.
- RUGGLES**, Charles (actor); Los Angeles, Calif., Feb. 8, 1892.
- RUSSELL**, Bertrand (philosopher); Trelleck, Eng., May 18, 1872.
- RUSSELL**, Jane (actress); Bemidji, Minn., June 21, 1921.
- RUSSELL**, Rosalind (actress); Waterbury, Conn., June 4, 1912.
- RYAN**, Robert (actor); Chicago, Ill., Nov. 11, 1913.
- SAINT**, Eva Marie (actress); Newark, N. J., July 4, 1924.
- ST. DENIS**, Ruth (Ruth Denis) (dancer); Newark, N. J., Jan. 20, 1880.
- ST. LAURENT**, Louis S. (Canadian statesman); Compton, Que., Can., Feb. 1, 1882.
- SALAZAR**, António de Oliveira (Premier, Portugal); Santa Comba, Port., 1889.
- SALINGER**, J. D. (novelist); New York City, Jan. 1, 1919.
- SALK**, Jonas (physician); New York City, Oct. 28, 1914.
- SANDBURG**, Carl (poet & biographer); Galesburg, Ill., Jan. 6, 1878.
- SANDE**, Earl (horse trainer); Groton, S. Dak., Nov. 19, 1898.

- SANDERS, George (actor); St. Petersburg, Rus., 1906.
- SARAZEN, Gene (golfer); Harrison, N. Y., Feb. 27, 1902.
- SARNOFF, David (radio executive); Uzman, Rus., Feb. 27, 1891.
- SAROYAN, William (story writer & dramatist); Fresno, Calif., Aug. 31, 1908.
- SARTRE, Jean-Paul (philosopher); Paris, Fr., June 21, 1905.
- SAVO, Jimmie (entertainer); New York City, 1895.
- SAYÃO, Bidú (soprano); Rio de Janeiro, Braz., May 11, 1906.
- SCHAEFER, Jake (billiards player); Chicago, Ill., Oct. 18, 1894.
- SCHARY, Dore (movie producer); Newark, N. J., Aug. 31, 1905.
- SCHAEFFING, Bob (Robert) (baseball manager); Overland, Mo., Aug. 11, 1915.
- SCHELL, Maria (actress); Vienna, 1926.
- SCHIAPARELLI, Elsa (fashion designer); Rome, It.
- SCHILDKRAUT, Joseph (actor); Vienna, Aus., Mar. 22, 1895.
- SCHIPA, Tito (tenor); Lecce, It., Jan. 2, 1890.
- SCHLESINGER, Arthur M., Jr. (historian); Columbus, Ohio, Oct. 15, 1917.
- SCHLESINGER, Arthur M., Sr. (historian); Xenia, Ohio, Feb. 27, 1888.
- SCHOENDIENST, Al (Albert) (baseball player); Germantown, Ill., Feb. 2, 1923.
- SCHULBERG, Budd (novelist); New York City, Mar. 27, 1914.
- SCHUMAN, William (composer); New York City, Aug. 4, 1910.
- SCHWARTZ, Maurice (actor); Sedikow, Ukr., June 18, 1890.
- SCHWARZKOPF, Elisabeth (soprano); Jarotschin, Posen, Ger., Dec. 9, 1915.
- SCHWEITZER, Albert (physician & philosopher); Kayserburg, Alsace, Jan. 14, 1875.
- SCORE, Herb (baseball player); Rosedale, N. Y., June 7, 1933.
- SCOTT, Barbara Ann (skater); Ottawa, Can., May 9, 1928.
- SCOTT, Hazel (pianist); Port of Spain, Trin., June 11, 1920.
- SCOTT, Randolph (actor); Orange Co., Va., Jan. 23, 1903.
- SCOTT, Zachary (actor); Austin, Tex., Feb. 24, 1914.
- SEABORG, Glenn T. (nuclear chemist); Ishpeming, Mich., Apr. 19, 1912.
- SEDMAN, Frank (tennis player); Mont Albert, Victoria, Austr., Oct. 29, 1927.
- SEGOVIA, Andrés (guitarist); Linares, Sp., Feb. 18, 1894.
- SEGURA, Francisco (tennis player); Guayaquil, Ec., June 20, 1921.
- SEIXAS, E. Victor, Jr. (tennis player); Philadelphia, Pa., Aug. 30, 1923.
- SELZNICK, David O. (movie producer); Pittsburgh, Pa., May 10, 1902.
- SERKIN, Rudolf (pianist); Eger, Boh., Mar. 28, 1903.
- SESSIONS, Roger (composer); Brooklyn, N. Y. Dec. 28, 1896.
- SHANTZ, Bobby (baseball player); Pottstown, Pa., Sept. 26, 1925.
- SHAPLEY, Harlow (astronomer); Nashville, Mo., Nov. 2, 1885.
- SHARETT, Moshé (Moshé Shertok) (Israeli statesman); Kherson, Rus., Oct. 3, 1894.
- SHAUGHNESSY, Frank J. (baseball executive); Albion, Ill., Apr. 8, 1885.
- SHAW, Artie (clarinetist); New York City, May 23, 1910.
- SHAW, Irwin (dramatist & novelist); New York City, Feb. 27, 1913.
- SHEARER, Moira (Moira Shearer King) (ballerina); Dunfermline, Fifes., Scot., Jan. 17, 1926.
- SHEAN, Vincent (novelist & essayist); Pana, Ill., Dec. 5, 1899.
- SHEEN, Fulton J. (clergyman & author); El Paso, Ill., May 8, 1895.
- SHERIDAN, Ann (actress); Denton, Tex., Feb. 21, 1915.
- SHERIFF, Robert (dramatist); Kingston-on-Thames, Eng., June 6, 1896.
- SHOEMAKER, Willie (jockey); Fabens, Tex., Aug. 19, 1931.
- SHOLOKHOV, Mikhail (novelist); Veshenskaya, Rus., 1905.
- SHORE, Dinah (singer); Winchester, Tenn., Mar. 1, 1917.
- SHOSTAKOVICH, Dmitri (composer); St. Petersburg, Rus., Sept. 26, 1906.
- SHULMAN, Max (humorist); St. Paul, Minn., Mar. 14, 1919.
- SHUMLIN, Herman (theatrical producer); Atwood, Colo., Dec. 6, 1898.
- SIKORSKY, Igor I. (aircraft designer); Kiev, Rus., May 25, 1889.
- SILONE, Ignazio (Secondo Tranquilli) (novelist); Pescina del Marsi, It., May 1, 1900.
- SILVERS, Phil (Philip Silversmith) (comedian); Brooklyn, N. Y., May 11, 1912.
- SIMENON, Georges (Georges Sim) (novelist); Liège, Belg., Feb. 13, 1903.
- SIMMONS, Jean (actress); Crouch Hill, London, Eng., Jan. 31, 1929.
- SIMONSON, Lee (stage designer); New York City, June 26, 1888.
- SINATRA, Frank (singer & actor); Hoboken, N. J., Dec. 12, 1917.
- SINCLAIR, Upton (novelist); Baltimore, Md., Sept. 20, 1878.
- SIQUEIROS, David (painter); Chihuahua, Mex., Dec. 29, 1896.
- SITWELL, Dame Edith (poet); Scarborough, Eng., 1887.
- SITWELL, Sir Osbert (poet & satirist); London, Eng., Dec. 6, 1892.
- SKELTON, Red (Richard) (comedian); Vincennes, Ind., July 18, 1913.
- SKINNER, Cornelia Otis (actress); Chicago, Ill., May 30, 1901.
- SLAUGHTER, Enos (baseball player); Roxboro, N. C., Apr. 27, 1916.
- SLEZAK, Walter (actor); Vienna, Aus., May 3, 1902.
- SLOAN, Alfred P., Jr. (business executive); New Haven, Conn., May 23, 1875.
- SMITH, H. Allen (humorist); McLeansboro, Ill., Dec. 19, 1907.
- SMITH, Kate (Kathryn) (singer); Greenville, Mo., May 1, 1909.
- SMITH, Lillian (novelist); Jasper, Florida, 1897.

SMITH, Red (Walter) (sports writer); Green Bay, Wis., Sept. 25, 1905.

SMYTHE, Conn (hockey executive); Toronto, Ont., Can., Feb. 1, 1895.

SNEAD, Sam (golfer); Hot Springs, Va., May 27, 1912.

SNIDER, Duke (Edwin) (baseball player); Los Angeles, Calif., Sept. 19, 1926.

SOTHERN, Ann (Harriette Lake) (actress); Valley City, N. Dak., Jan. 22, 1911.

SOUSTELLE, Jacques (French govt. official); Montpellier, Hérault, Fr., Feb. 3, 1912.

SPAACK, Paul Henri (Belgian statesman); Brussels, Belg., Jan. 25, 1899.

SPAHN, Warren (baseball player); Buffalo, N. Y., Apr. 23, 1921.

SPENDER, Stephen (poet); nr. London, Eng., Feb. 28, 1909.

SPEWACK, Bella (dramatist); Hungary, 1899.

SPEWACK, Sam (dramatist); Russia, 1899.

SPILLANE, Mickey (Frank Spillane) (novelist); Brooklyn, N. Y., Mar. 9, 1918.

SPOCK, Benjamin (pediatrician); New Haven, Conn., May 2, 1903.

SPROUL, Robert G. (educator); San Francisco, Calif., May 22, 1891.

STAGG, A. Alonzo (football coach); West Orange, N. J., Aug. 16, 1862.

STANLEY, Kim (Patricia Reid) (actress); Tularosa, N. Mex., Feb. 11, 1925.

STANWYCK, Barbara (Ruby Stevens) (actress); Brooklyn, N. Y., July 16, 1907.

STASSEN, Harold E. (U. S. administrator); West St. Paul, Minn., Apr. 13, 1907.

STEBER, Eleanor (soprano); Wheeling, W. Va., July 17, 1916.

STEFANSSON, Vilhjalmur (explorer); Arnes, Can., Nov. 3, 1879.

STEICHEN, Edward (photographer); Luxembourg, May 27, 1879.

STEIGER, Rod (actor); Westhampton, N. Y., Apr. 14, 1925.

STEINBECK, John (novelist); Salinas, Calif., Feb. 27, 1902.

STEINBERG, Saul (cartoonist); Ramnic-Sarat, Rum., June 15, 1914.

STENGEL, Casey (Charles D.) (baseball manager); Kansas City, Mo., July 30, 1891.

STERN, Isaac (violinist); Kremintecz, Rus., July 21, 1920.

STEVENS, George (movie producer); Oakland, Calif., 1905.

STEVENS, Mark (actor); Cleveland, Ohio, Dec. 13.

STEVENS, Risé (mezzo-soprano); New York City, June 11, 1913.

STEVENSON, Adlai E. (U. S. statesman); Los Angeles, Calif., Feb. 5, 1900.

STEWART, James (actor); Indiana, Pa., May 20, 1908.

STICKNEY, Dorothy (actress); Dickinson, N. Dak., June 21, 1900.

STOKOWSKI, Leopold (orchestra conductor); London, Eng., Apr. 18, 1882.

STONE, Edward D. (architect); Fayetteville, Ark., Mar. 9, 1902.

STRANAHAN, Frank R. (golfer); Toledo, Ohio, Aug. 5, 1922.

STRASBERG, Susan (actress); New York City, May 22, 1938.

STRAUSS, Lewis L. (former AEC Chmn., U. S.); Charleston, W. Va., Jan. 31, 1896.

STRAVINSKY, Igor (composer); Oranienbaum, Rus., June 17, 1882.

STREETER, Edward (novelist); New York City, Aug. 1, 1891.

SUKARNO (President and Premier, Indonesia); Surabaya, Java, 1901.

SULLAVAN, Margaret (actress); Norfolk, Va., May 16, 1911.

SULLIVAN, Barry (Patrick Barry) (actor); New York City, Aug. 29, 1912.

SULLIVAN, Ed (columnist & TV performer); New York City, Sept. 28, 1902.

SULLIVAN, Frank (humorist); Saratoga Springs, N. Y., Sept. 22, 1892.

SULZBERGER, Arthur H. (publisher); New York City, Sept. 12, 1891.

SWANSON, Gloria (Josephine Swenson) (actress); Chicago, Ill., Mar. 27, 1898.

SWARTHOUT, Gladys (mezzo-soprano); Deepwater, Mo., Dec. 25, 1904.

SZELL, George (orchestra conductor); Budapest, Hung., June 7, 1897.

SZIGETI, Joseph (violinist); Budapest, Hung., Sept. 5, 1892.

TALBERT, Billy (tennis player); Cincinnati, Ohio, Sept. 4, 1918.

TALBURT, Harold M. (cartoonist); Toledo, Ohio, Feb. 19, 1895.

TALLCHIEF, Maria (ballerina); Fairfax, Okla., Jan. 24, 1925.

TANDY, Jessica (actress); London, Eng., June 7, 1909.

TATE, Allen (poet); Winchester, Ky., Nov. 19, 1899.

TAYLOR, Deems (composer); New York City, Dec. 22, 1885.

TAYLOR, Elizabeth (actress); London, Eng., Feb. 27, 1932.

TAYLOR, Gen. Maxwell D. (U. S. Army officer); Keytesville, Mo., Aug. 26, 1901.

TAYLOR, Robert (S. Arlington Brugh) (actor); Filley, Nebr., Aug. 5, 1911.

TEBALDI, Renata (soprano); Pesaro, It.; Jan. 2, 1922.

TEBBETTS, Birdie (George R.) (baseball manager); Nashua, N. H., Nov. 10, 1914.

TELLER, Edward (physicist); Budapest, Hung., Jan. 15, 1908.

TEMPLE, John (baseball player); Lexington, N. C., Aug. 8, 1929.

TEMPLE, Shirley (actress); Santa Monica, Calif., Apr. 23, 1928.

TEMPLETON, Alec (pianist); Cardiff, Wales, July 4, 1910.

THEBOM, Blanche (mezzo-soprano); Monessen, Pa., Sept. 19, 1919.

THOMAS, Danny (Amos Jacobs) (comedian); Deerfield, Mich., Jan. 6, 1914.

THOMAS, Frank (baseball player); Pittsburgh, Pa., June 11, 1921.

THOMAS, Lowell (lecturer & author); Woodington, Ohio, Apr. 6, 1892.

THOMAS, Norman (Socialist leader); Marlon, Ohio, Nov. 20, 1884.

THOMPSON, Randall (composer); New York City, Apr. 21, 1899.

THOMSON, Virgil (composer); Kansas City, Mo., Nov. 25, 1896.

THOREZ, Maurice (Fr. Communist leader); Noyelles-Gaudault, Fr., Apr. 28, 1900.

- THORNDIKE**, Dame Sybil (actress); Gainsborough, Lincs., Eng., Oct. 24, 1882.
- THURBER**, James (humorist); Columbus, Ohio, Dec. 8, 1894.
- TIERNEY**, Gene (actress); Brooklyn, N. Y., Nov. 20, 1920.
- TILLICH**, Paul (theologian); Starzeddel, Kreis Guben, Prussia, Aug. 20, 1886.
- TITO** (Josip Brozovich or Broz) (President, Yugoslavia); Croatia, May 25, 1892.
- TOGLIATTI**, Palmiro (Italian Communist leader); Genoa, It., Mar. 26, 1893.
- TONE**, Franchot (actor); Niagara Falls, N. Y., Feb. 27, 1905.
- TOUREL**, Jennie (mezzo-soprano); Montreal, Can., June 22, 1910.
- TOYNBEE**, Arnold J. (historian); London, Eng., Apr. 14, 1889.
- TRABERT**, Tony (tennis player); Cincinnati, Ohio, Aug. 16, 1930.
- TRACY**, Spencer (actor); Milwaukee, Wis., Apr. 5, 1900.
- TRAUBEL**, Helen (soprano); St. Louis, Mo., June 16, 1903.
- TRAUTMAN**, George M. (baseball executive); Bucyrus, Ohio, Jan. 11, 1890.
- TRILLING**, Lionel (author & educator); New York City, July 4, 1905.
- TRUEX**, Ernest (actor); Kansas City, Mo., Sept. 19, 1890.
- TRUJILLO Y MOLINA**, Rafael (Dom. Rep. statesman); San Cristóbal, Oct. 24, 1891.
- TRUMAN**, Harry S. (U. S. statesman); Lamar, Mo., May 8, 1884.
- TRUMAN**, Margaret (soprano); Independence, Mo., Feb. 17, 1924.
- TUCKER**, Richard (tenor); New York City, Aug. 28, 1914.
- TUCKER**, Sophie (Sophie Abuza) (entertainer); Russia, 1884.
- TUDOR**, Anthony (choreographer); London, Eng., Apr. 4, 1909.
- TUNNEY**, Gene (James J.) (boxer); New York City, May 25, 1898.
- TURLEY**, Bob (baseball player); Troy, Ill., Sept. 19, 1930.
- TURNER**, Lana (Julia Jean Turner) (actress); Wallace, Idaho, Feb. 8, 1920.
- TURNESA**, Willie (golfer); Elmsford, N. Y., Jan. 29, 1914.
- TWINING**, Gen. Nathan F. (Chmn., Joint Chiefs of Staff, U. S.); Monroe, Wis., Oct. 11, 1897.
- ULBRICHT**, Walter (German Communist leader); Leipzig, Ger., June 30, 1893.
- UNTERMEYER**, Louis (poet & anthologist); New York City, Oct. 1, 1885.
- UREY**, Harold C. (chemist); Walkerton, Ind., Apr. 29, 1893.
- USTINOV**, Peter (dramatist & actor); London, Eng., 1921.
- VALLEE**, Rudy (Hubert) (actor & band leader); Island Pond, Vt., July 28, 1901.
- VANDERBILT**, Alfred G. (horse racing executive); London, Eng., Sept. 22, 1912.
- VAN DOREN**, Mark (poet & critic); Hope, Ill., June 13, 1894.
- VANIER**, George P. (Gov. Gen., Canada); Montreal, Que., Can., Apr. 23, 1888.
- VERDON**, Gwen (actress); Culver City, Calif.
- VIDOR**, King (movie director & producer); Galveston, Tex., Feb. 8, 1895.
- VILLA-LOBOS**, Heitor (composer); Rio de Janeiro, Braz., Mar. 5, 1887.
- VON BRAUN**, Wernher (rocket engineer); Wirsitz, Ger., Mar. 23, 1912.
- WAGNER**, Robert (actor); Detroit, Mich., Feb. 10, 1930.
- WAGNER**, Robert F. (Mayor, NYC); New York City, Apr. 20, 1910.
- WALCOTT**, Jersey Joe (Arnold Cream) (boxer); Merchantville, N. J., Jan. 31, 1914.
- WALKER**, Mickey (boxer); Elizabeth, N. J., July 13, 1901.
- WALKER**, Nancy (Ann Myrtle Swoyer) (actress); Philadelphia, Pa.
- WALLACE**, DeWitt (publisher); St. Paul, Minn., Nov. 12, 1889.
- WALLACE**, Henry A. (U. S. statesman); Adair Co., Iowa, Oct. 7, 1888.
- WALLACE**, Mike (TV personality) (Myron Wallace); Brookline, Mass., May 9, 1918.
- WALTARI**, Mika (novelist); Helsinki, Fin., Sept. 19, 1908.
- WALTER**, Bruno (Bruno Walter Schlesinger) (conductor); Berlin, Ger., Sept. 17, 1876.
- WARD**, Barbara (writer & economist); York, Eng., May 23, 1914.
- WARING**, Fred (band leader); Tyrone, Pa., June 9, 1900.
- WARREN**, Leonard (baritone); New York City, Apr. 21, 1911.
- WARREN**, Robert Penn (novelist); Guthrie, Ky., Apr. 24, 1905.
- WATERS**, Ethel (actress & singer); Chester, Pa., Oct. 31, 1900.
- WAUGH**, Alec (Alexander Raban Waugh) (novelist); London, Eng., July 8, 1898.
- WAUGH**, Evelyn (novelist); London, 1903.
- WAYNE**, David (David McMeekan) (actor); Traverse City, Mich., Jan. 30, 1914.
- WAYNE**, John (Marion Michael Morrison) (actor); Winterset, Iowa, May 26, 1907.
- WEBB**, Clifton (Webb Parmelee Hollenbeck) (actor); Indianapolis, Ind., Nov. 19, 1893.
- WEBB**, Jack (actor); Santa Monica, Calif., Apr. 2, 1920.
- WEBSTER**, Margaret (actress & director); New York City, Mar. 15, 1905.
- WEEDE**, Robert (baritone) (Robert Wiedefeld); Baltimore, Md., Feb. 22, 1903.
- WELCH**, Joseph N. (lawyer); Primghar, Iowa, Oct. 22, 1890.
- WELK**, Lawrence (band leader); Strasburg, N. Dak., Mar. 11, 1903.
- WELLES**, Orson (actor & director); Kenosha, Wis., May 6, 1915.
- WELTY**, Eudora (novelist); Jackson, Miss., Apr. 13, 1909.
- WEST**, Mae (actress); Brooklyn, N. Y., Aug. 17, 1892.
- WEST**, Rebecca (Cicely Fairfield) (novelist); Edinburgh, Scot., Dec. 25, 1892.
- WHITE**, E. B. (Elwyn Brooks White) (writer); Mt. Vernon, N. Y., July 11, 1899.
- WHITE**, Paul Dudley (physician); Roxbury, Mass., June 6, 1886.
- WHITEMAN**, Paul (band leader); Denver, Colo., 1891.
- WHITNEY**, C. V. (horse racing executive); New York City, Feb. 20, 1899.

- WHITNEY**, John Hay (U. S. diplomat); Ellsworth, Me., Aug. 17, 1904.
- WHORF**, Richard (actor); Winthrop, Mass., June 4, 1906.
- WIDENER**, George D. (horse racing executive); Philadelphia, Pa., Mar. 11, 1889.
- WIDMARK**, Richard (actor); Sunrise, Minn., Dec. 26, 1914.
- WILDE**, Cornel (actor); New York City, Oct. 13, 1915.
- WILDER**, Billy (movie director); Vienna, Aus., June 22, 1906.
- WILDER**, Thornton (novelist); Madison, Wis., Apr. 17, 1897.
- WILDING**, Michael (actor); Westcliff, Essex, Eng., July 23, 1912.
- WILLARD**, Jess (boxer); Pottawatomie Co., Kans., Dec. 29, 1883.
- WILLIAMS**, Emlyn (dramatist); Mostyn, Wales, Nov. 26, 1905.
- WILLIAMS**, Esther (swimmer & actress); Los Angeles, Calif., Aug. 8, 1923.
- WILLIAMS**, Gluyas (cartoonist); San Francisco, Calif., July 23, 1888.
- WILLIAMS**, Ted (baseball player); San Diego, Calif., Oct. 30, 1918.
- WILLIAMS**, Tennessee (Thomas L. Williams) (dramatist); Columbus, Miss., Mar. 26, 1914.
- WILLIAMS**, William Carlos (poet); Rutherford, N. J., Sept. 17, 1883.
- WILLSON**, Meredith (composer & actor); Mason City, Iowa, May 18, 1902.
- WILSON**, Charles Erwin (former Secretary of Defense, U. S.); Minerva, Ohio, July 18, 1890.
- WILSON**, Edmund (literary critic); Red Bank, N. J., May 8, 1895.
- WILSON**, Sloan (novelist); Norwalk, Conn., May 8, 1920.
- WINCHELL**, Walter (columnist); New York City, Apr. 7, 1897.
- WINDSOR**, Duchess of (Bessie Wallis Warfield); Blue Ridge Summit, Pa., June 19, 1896.
- WINDSOR**, Duke of (formerly King Edward VIII, Gr. Brit.); Richmond Park, Eng., June 23, 1894.
- WINTERS**, Shelley (Shirley Schrift) (actress); East St. Louis, Ill., Aug. 18, 1922.
- WOODWARD**, Joanne (actress); Thomasville, Ga., Feb. 27, 1931.
- WOOLLEY**, Monty (Edgar) (actor); New York City, Aug. 17, 1888.
- WOUK**, Herman (novelist); New York City, May 27, 1915.
- WRIGHT**, Richard (novelist); nr. Natchez, Miss., Sept. 4, 1908.
- WRIGHT**, Teresa (actress); New York City, Oct. 27, 1918.
- WYATT**, Jane (actress); Campgaw, N. J., Aug. 12, 1912.
- WYETH**, Andrew (painter); Chadds Ford, Pa., July 12, 1917.
- WYLER**, William (movie director); Mulhouse, Fr., July 1, 1902.
- WYLIE**, Philip (novelist); Beverly, Mass., May 12, 1902.
- WYMAN**, Jane (Sarah Jane Fulks) (actress); St. Joseph, Mo., Jan. 4, 1914.
- WYNN**, Ed (Edwin Leopold) (comedian); Philadelphia, Pa., Nov. 9, 1886.
- WYNN**, Keenan (actor); New York City, July 27, 1916.
- YOUNG**, Loretta (Gretchen Young) (actress); Salt Lake City, Utah, Jan. 6, 1913.
- YOUNG**, Robert (actor); Chicago, Ill., Feb. 22, 1907.
- ZANUCK**, Darryl F. (movie director); Wahoo, Nebr., Sept. 5, 1902.
- ZIMBALIST**, Efreim (violinist); Rostov-on-Don, Rus., Apr. 9, 1889.
- ZWEIG**, Arnold (novelist); Grosz-Glogau, Silesia, Nov. 10, 1887.

★ CELEBRATED PERSONS OF THE PAST ★

For the Presidents of the United States, consult the entry Presidents in the index. For the Rulers of England, France, Germany and Russia, consult the entry Rulers. In many instances below, the original name or form of the name of the individual is shown in parentheses.

- ABELARD**, Peter (Pierre Abélard) (philosopher); b. near Nantes, Fr. (1079-1142).
- ADAMS**, Charles Francis (diplomat); b. Boston, Mass. (1807-1886).
- ADAMS**, Henry Brooks (historian); b. Boston, Mass. (1838-1918).
- ADAMS**, James Truslow (historian); b. Brooklyn, N. Y. (1878-1949).
- ADAMS**, Maude (Maude Kiskadden) (actress); b. Salt Lake City, Utah (1872-1953).
- ADAMS**, Samuel (American Revolutionary patriot); b. Boston, Mass. (1722-1803).
- ADAMS**, Samuel Hopkins (novelist); b. Dunkirk, N. Y. (1871-1958).
- ADDAMS**, Jane (social worker); b. Cedarville, Ill. (1860-1935).
- ADE**, George (humorist); b. Kentland, Ind. (1866-1944).
- ADLER**, Alfred (psychoanalyst); b. Vienna, Aus. (1870-1937).
- AESCHYLUS** (dramatist); b. Eleusis, Attica (525-456 B.C.).
- AESOP** (fabulist); birthplace unknown (lived c. 600 B.C.).
- ALCOTT**, Louisa May (novelist); b. Germantown, Pa. (1832-1888).
- ALDEN**, John (American Pilgrim); b. England (1599?-1687).
- ALEXANDER** the Great (monarch & conqueror); b. Pella, Macedonia (356-323 B.C.).
- ALGER**, Horatio (author); b. Revere, Mass. (1834-1899).
- ALLEN**, Ethan (American Revolutionary soldier); b. Litchfield, Conn. (1738-1789).
- ALLEN**, Fred (John Florence Sullivan) (comedian); b. Cambridge, Mass. (1894-1956).
- ANDERSEN**, Hans Christian (fairy-tale writer); b. Odense, Den. (1805-1875).

- ANDERSON, Maxwell** (dramatist); b. Atlantic, Pa. (1888-1959).
- ANTHONY, Mark** (Marcus Antonius) (statesman); b. Rome (83?-30 B.C.).
- ANTHONY, Susan Brownell** (woman suffragist); b. Adams, Mass. (1820-1906).
- AQUINAS, St. Thomas** (philosopher); b. near Aquino, It. (1225?-1274).
- ARCHIMEDES** (physicist & mathematician); b. Syracuse, Sicily (287?-212 B.C.).
- ARISTOPHANES** (dramatist); b. Athens (448?-380 B.C.).
- ARISTOTLE** (philosopher); b. Stagira (384-322 B.C.).
- ARNOLD, Benedict** (American traitor); b. Norwich, Conn. (1741-1801).
- ARNOLD, Matthew** (poet & critic); b. Laleham, Mid., Eng. (1822-1888).
- ASCH, Sholem** (novelist); b. Kutno, Pol. (1880-1957).
- ASTOR, John Jacob** (financier); b. Waldorf, Ger. (1763-1848).
- ATTILA** (King of Huns, called "Scourge of God") (406?-453).
- AUDUBON, John James** (naturalist & artist); b. Haiti (1785-1851).
- AUER, Leopold** (violinist & teacher); b. Veszprém, Hung. (1845-1930).
- AUGUSTINE, Saint** (Aurelius Augustinus) (philosopher); b. Numidia (354-430).
- AUGUSTUS** (Gaius Octavius) (Roman emperor); b. Rome (63 B.C.-A.D. 14).
- AUSTEN, Jane** (novelist); b. Steventon, Hamps., Eng. (1775-1817).
- BACH, Johann Sebastian** (composer); b. Eisenach, Ger. (1685-1750).
- BACON, Francis** (philosopher & essayist); b. London, England (1561-1626).
- BACON, Roger** (philosopher & scientist); b. Ilchester, Som., Eng. (1214?-1294).
- BAEDEKER, Karl** (travel-guidebook publisher); b. Essen, Ger. (1801-1859).
- BALBOA, Vasco Núñez de** (explorer); b. Jerez de los Caballeros, Sp. (1475-1517).
- BALZAC, Honoré de** (novelist); b. Tours, Fr. (1799-1850).
- BANTING, Sir Frederick Grant** (research physician); b. Canada (1891-1941).
- BARA, Theda** (Theodosia Goodman) (actress); b. Cincinnati, Ohio (1890-1955).
- BARKLEY, Alben William** (U. S. statesman); b. Graves Co., Ky. (1877-1956).
- BARNUM, Phineas Taylor** (showman); b. Bethel, Conn. (1810-1891).
- BARRIE, Sir James Matthew** (novelist & dramatist); b. Kirriemuir, Forfarshire, Scot. (1860-1937).
- BARRY, Philip** (dramatist); b. Rochester, N. Y. (1896-1949).
- BARRYMORE, Ethel** (actress); b. Philadelphia, Pa. (1879-1959).
- BARRYMORE, John** (actor); b. Philadelphia, Pa. (1882-1942).
- BARRYMORE, Lionel** (actor); b. Philadelphia, Pa. (1878-1954).
- BARTÓK, Béla** (composer); b. Nagyszémmiklos, Transylvania, Hung. (1881-1945).
- BARTON, Clara** (Clarissa Harlowe Barton) (social worker); b. Oxford, Mass. (1821-1912).
- BAUDELAIRE, Charles Pierre** (poet); b. Paris, Fr. (1821-1867).
- BECKET, Thomas à** (Archbishop of Canterbury); b. London, Eng. (1118?-1170).
- BEDE, Saint** (called "The Venerable Bede") (scholar); b. Monkwearmouth, Eng. (673-735).
- BEECHER, Henry Ward** (clergyman); b. Litchfield, Conn. (1813-1887).
- BEERBOHM, Sir Max** (author); b. London, Eng. (1872-1956).
- BEETHOVEN, Ludwig van** (composer); b. Bonn, Ger. (1770-1827).
- BELASCO, David** (dramatist & producer); b. San Francisco, Calif. (1854-1931).
- BELL, Alexander Graham** (inventor); b. Edinburgh, Scot. (1847-1922).
- BELLAMY, Edward** (author); b. Chicopee Falls, Mass. (1850-1898).
- BELLOWS, George Wesley** (painter & lithographer); b. Columbus, Ohio (1882-1925).
- BENCHLEY, Robert Charles** (humorist); b. Worcester, Mass. (1889-1945).
- BENÉŠ, Eduard** (Czech statesman); b. Kožlany, Bohemia (1884-1948).
- BENÉT, Stephen Vincent** (poet & story writer); b. Bethlehem, Pa. (1898-1943).
- BENÉT, William Rose** (poet & novelist); b. Ft. Hamilton, N. Y. (1886-1950).
- BENJAMIN, Judah Philip** (Confederate statesman); b. St. Thomas, B.W.I. (1811-1884).
- BENNETT, Enoch Arnold** (novelist & dramatist); b. Hanley, Staffs., Eng. (1867-1931).
- BENNETT, James Gordon** (editor); b. Keith, Banffshire, Scot. (1795-1872).
- BERKSON, Seymour** (publisher); b. Chicago, Ill. (1905-1959).
- BERLIOZ, Louis Hector** (composer); b. La Côte-St.-André, Fr. (1803-1869).
- BERNHARDT, Sarah** (Rosine Bernard) (actress); b. Paris, Fr. (1844-1923).
- BEVIN, Ernest** (British statesman); b. Somersetshire, Eng. (1881-1951).
- BIERCE, Ambrose Gwynnett** (journalist); b. Meigs Co., Ohio (1842?-1914).
- BISMARCK-SCHÖNHAUSEN, Prince Otto Eduard Leopold von** (German statesman); b. Schönhausen, Prus. (1815-1898).
- BIZET, Georges** (Alexandre César Léopold Bizet) (composer); b. Paris, Fr. (1838-1875).
- BLACKSTONE, Sir William** (jurist); b. London, Eng. (1723-1780).
- BLAKE, William** (poet & artist); b. London, Eng. (1757-1827).
- BLUM, Léon** (French statesman); b. Paris, Fr. (1872-1950).
- BOCCACCIO, Giovanni** (author); b. Paris, Fr. (1313-1375).
- BOGART, Humphrey DeForest** (actor); b. New York City (1900-1957).
- BOLÍVAR, Simón** (South American liberator); b. Caracas, Venez. (1783-1830).
- BOND, Carrie** (nee Jacobs) (composer of songs); b. Janesville, Wis. (1862-1946).
- BOONE, Daniel** (frontiersman); b. near Reading, Pa. (1734-1820).
- BOOTH, Edwin Thomas** (actor); b. Bel Air, Md. (1833-1893).
- BOOTH, Evangeline Cory** (religious leader); b. London, Eng. (1865-1950).

- BOOTH**, John Wilkes (actor; assassin of Lincoln); b. Hartford County, Md. (1838-1865).
- BOOTH**, William (called General Booth) (religious leader); b. Nottingham, Eng. (1829-1912).
- BORGIA**, Cesare (nobleman & soldier); b. Rome (1475?-1507).
- BORGIA**, Lucrezia (Duchess of Ferrara); b. Rome (1480-1519).
- BOSWELL**, James (diarist & biographer); b. Edinburgh, Scot. (1740-1795).
- BOTTICELLI**, Sandro (Alessandro di Mariano dei Filipepi) (painter); b. Florence (1444?-1510).
- BOWIE**, James (soldier); b. Burke Co., Ga. (1799-1836).
- BRAHMS**, Johannes (composer); b. Hamburg, Ger. (1833-1897).
- BRAILLE**, Louis (teacher of blind); b. Coupvray, Fr. (1809-1852).
- BRANDEIS**, Louis Dembitz (jurist); b. Louisville, Ky. (1856-1941).
- BRICE**, Fanny (Fannie Borach) (comedianne); b. New York City (1892-1951).
- BRISBANE**, Arthur (journalist) b. Buffalo, N. Y. (1864-1936).
- BROMFIELD**, Louis (novelist); b. Mansfield, Ohio (1896-1956).
- BRONTË**, Charlotte (novelist); b. Thornton, Yorks., Eng. (1816-1855).
- BRONTË**, Emily Jane (novelist); b. Thornton, Yorks., Eng. (1818-1848).
- BROOKE**, Rupert (poet); b. Rugby, War., Eng. (1887-1915).
- BROWN**, Matthew Heywood Campbell (journalist); b. Brooklyn, N. Y. (1888-1939).
- BROWN**, John (abolitionist); b. Torrington, Conn. (1800-1859).
- BROWNING**, Elizabeth Barrett (poet); b. Coxhoe Hall, Durham, England (1806-1861).
- BROWNING**, Robert (poet); b. London, Eng. (1812-1889).
- BRUEGHEL**, Pieter (painter); b. near Breda, Flanders (1520-1569).
- BRUTUS**, Marcus Junius (Roman politician) (85?-42 B.C.).
- BRYAN**, William Jennings (orator & politician); b. Salem, Ill. (1860-1925).
- BRYANT**, William Cullen (poet & editor); b. Cummington, Mass. (1794-1878).
- BUDDHA**. See Gautama Buddha.
- BUFFALO BILL** (William Frederick Cody) (scout); b. Scott Co., Iowa (1846-1917).
- BUNYAN**, John (preacher & author); b. Elstow, Eng. (1628-1688).
- BURBANK**, Luther (horticulturist); b. Lancaster, Mass. (1849-1926).
- BURKE**, Edmund (statesman); b. Dublin, Ire. (1729-1797).
- BURNS**, Robert (poet); b. Alloway, Scot. (1759-1796).
- BURR**, Aaron (U. S. political leader); b. New York, N. J. (1756-1836).
- BUTLER**, Nicholas Murray (educator); b. Elizabeth, N. J. (1862-1947).
- BUTLER**, Samuel (author); b. Langar, Notts., Eng. (1835-1902).
- BYRD**, Richard Evelyn (explorer); b. Winchester, Va. (1888-1957).
- BYRON**, George Gordon (6th Baron Byron) (poet); b. London, Eng. (1788-1824).
- CABELL**, James Branch (novelist); b. Richmond, Va. (1879-1958).
- CABOT**, John (Giovanni Caboto) (navigator); b. Genoa (1450-1498).
- CABOT**, Sebastian (navigator); b. Venice (1476?-1557).
- CAESAR**, Gaius Julius (Roman statesman); b. Rome (100?-44 B.C.).
- CALHERN**, Louis (Carl Henry Vogt) (actor); b. New York City (1895-1956).
- CALHOUN**, John Caldwell (statesman); b. near Calhoun Mills, S. C. (1782-1850).
- CALVIN**, John (Jean Chauvin) (religious reformer); b. Noyon, Picardy (1509-1564).
- CARDOZO**, Benjamin Nathan (jurist); b. New York City (1870-1938).
- CARLYLE**, Thomas (essayist & historian); b. Ecclefechan, Dumfriesshire, Scot. (1795-1881).
- CARNEGIE**, Andrew (industrialist); b. Dunfermline, Scot. (1835-1919).
- CARROLL**, Lewis (Charles Lutwidge Dodgson) (author & mathematician); b. Daresbury, Ches., Eng. (1832-1898).
- CARSON**, Kit (Christopher) (scout); b. Madison Co., Ky. (1809-1868).
- CARUSO**, Enrico (Errico) (tenor); b. Naples, It. (1873-1921).
- CARVER**, George Washington (botanist); b. Missouri (1864-1943).
- CARY**, Arthur Joyce Lunel (novelist); b. Londonderry, Ire. (1888-1957).
- CASANOVA** DE SEINGALT, Giovanni Jacopo (adventurer); b. Venice (1725-1798).
- CATHER**, Willa Sibert (novelist); b. Winchester, Va. (1876-1947).
- CATO**, Marcus Porcius (called Cato the Elder) (statesman); b. Tusculum (234-149 B.C.).
- CATT**, Carrie Chapman (nee Lane) (woman suffragist); b. Ripon, Wis. (1859-1947).
- CELLINI**, Benvenuto (goldsmith & sculptor); b. Florence (1500-1571).
- CERVANTES** SAAVEDRA, Miguel de (novelist); b. Alcalá de Henares, Sp. (1547-1616).
- CÉZANNE**, Paul (painter); b. Aix-en-Provence, Fr. (1839-1906).
- CHALIAPIN**, Feodor Ivanovitch (basso); b. Kazan, Rus. (1873-1938).
- CHAMPLAIN**, Samuel de (explorer); b. nr. Rochefort, Fr. (1567?-1635).
- CHANEY**, Lon (actor); b. Colorado Springs, Colo. (1883-1930).
- CHARLEMAGNE** (Holy Roman Emperor); birthplace unknown (742-814).
- CHAUCER**, Geoffrey (poet); b. London, Eng. (1340?-1400).
- CHEKHOV**, Anton Pavlovich (dramatist & story writer); b. Taganrog, Rus. (1860-1904).
- CHESTERTON**, Gilbert Keith (author); b. Kensington, Eng. (1874-1936).
- CHIPPENDALE**, Thomas (cabinetmaker); b. Otley, Eng. (1718?-1779).
- CHOPIN**, Frédéric François (composer); b. nr. Warsaw, Pol. (1810-1849).
- CICERO**, Marcus Tullius (orator & statesman); b. Arpinum, It. 106-43 B.C.).
- CLARK**, William (explorer); b. Caroline Co., Va. (1770-1838).
- CLAY**, Henry (statesman); b. Hanover Co., Va. (1777-1852).

- CLEMENCEAU**, Georges (statesman); b. Mouilleron-en-Pareds, Vendée, France (1841-1929).
- CLEMENS**, S. L. *See* Twain
- CLEOPATRA** (Queen of Egypt); b. Alexandria, Egy. (69-30 B.C.).
- COBB**, Irvin Shrewsbury (humorist); b. Paducah, Ky. (1876-1944).
- CODY**, W. F. *See* Buffalo Bill.
- COHAN**, George Michael (actor & dramatist); b. Providence, R. I. (1878-1942).
- COHEN**, Morris Raphael (philosopher & educator); b. Minsk, Rus. (1880-1947).
- COLERIDGE**, Samuel Taylor (poet); b. Ottery St. Mary, Dev., Eng. (1772-1834).
- COLLETTE** (Sidonie-Gabrielle Colette) (novelist); b. St.-Sauveur, Fr. (c.1873-1954).
- COLMAN**, Ronald (actor); b. Richmond, Surrey, Eng. (1891-1958).
- COLUMBUS**, Christopher (Cristoforo Colombo) (discoverer of America); b. Genoa (1451-1506).
- COMPTON**, Karl Taylor (physicist); b. Wooster, Ohio (1887-1954).
- CONFUCIUS** (K'ung Fu-tzu) (philosopher); b. Shantung prov., China (c. 551-479 B.C.).
- CONGREVE**, William (dramatist); b. nr. Leeds, Eng. (1670-1729).
- CONRAD**, Joseph (Teodor Józef Konrad Korzeniowski) (novelist); b. Berdichev, Ukraine (1857-1924).
- COOPER**, James Fenimore (novelist); b. Burlington, N. J. (1789-1851).
- COOPER**, Peter (industrialist & philanthropist); b. New York City (1791-1883).
- COPERNICUS**, Nicolaus (Mikolaj Kopernik) (astronomer); b. Thorn, Pol. (1473-1543).
- CORBETT**, James John (boxer); b. San Francisco, Calif. (1866-1933).
- CORNEILLE**, Pierre (dramatist); b. Rouen, Fr. (1606-1684).
- COROT**, Jean Baptiste Camille (painter); b. Paris, Fr. (1796-1875).
- CORREGGIO**, Antonio Allegri da (painter); b. Correggio, It. (1494-1534).
- CORTÉS** (or CORTEZ), Hernando (explorer); b. Medellín, Sp. (1485-1547).
- COWL**, Jane (Jane Cowles) (actress); b. Boston, Mass. (1884-1950).
- COWPER**, William (poet); b. Great Berkhamsstead, Herts., Eng. (1731-1800).
- COX**, James Middleton (publisher); b. Jacksonburg, Ohio (1870-1957).
- CRANE**, Stephen (novelist & poet); b. Newark, N. J. (1871-1900).
- CROCE**, Benedetto (philosopher); b. Pescasseroli, Aquila, It. (1866-1952).
- CROCKETT**, Davy (David) (frontiersman); b. Greene Co., Tenn. (1786-1836).
- CURIE**, Marie (Maria Skłodowska) (physical chemist); b. Warsaw, Pol. (1867-1934).
- CURIE**, Pierre (chemist); b. Paris, Fr. (1859-1906).
- CUSTER**, George Armstrong (army officer); b. New Rumley, Ohio (1839-1876).
- DAMROSCH**, Walter Johannes (orchestra conductor); b. Breslau, Ger. (1862-1950).
- DANA**, Charles Anderson (editor); b. Hinsdale, N. H. (1819-1897).
- D'ANNUNZIO**, Gabriele (soldier & author); b. Francaville al Mare, Pescara, It. (1863-1938).
- DANTE** (or DURANTE) **ALIGHIERI** (poet); b. Florence (1265-1321).
- DANTON**, Georges Jacques (French Revolutionary leader); b. Arcis-sur-Aube, Fr. (1759-1794).
- DARROW**, Clarence Seward (lawyer); b. Kinsman, Ohio (1857-1938).
- DARWIN**, Charles Robert (naturalist); b. Shrewsbury, Shrops., Eng. (1809-1882).
- DAUMIER**, Honoré (caricaturist); b. Marseille, Fr. (1808-1879).
- DAVID** (King of Israel & Judah) (died c.973 B.C.).
- DAVIDSON**, Jo (sculptor); b. New York City (1883-1952).
- DAVIS**, Elmer Holmes (radio commentator); b. Aurora, Ind. (1890-1958).
- DAVIS**, Jefferson (Pres. of Confederacy); b. Christian (now Todd) Co., Ky. (1808-1889).
- DEAN**, James (actor); b. Marion, Ind. (1931-1955).
- DEBS**, Eugene Victor (Socialist leader); b. Terre Haute, Ind. (1855-1926).
- DEBUSSY**, Claude Achille (composer); b. St. Germain-en-Laye, Fr. (1862-1918).
- DEFOE**, Daniel (novelist); b. London, Eng. (1659?-1731).
- DEGAS**, Hilaire Germain Edgar (painter); b. Paris, Fr. (1834-1917).
- DE MILLE**, Cecil Blount (movie director); b. Ashfield, Mass. (1881-1959).
- DEMOSTHENES** (orator); b. Athens (385?-322 B.C.).
- DESCARTES**, René (philosopher & mathematician); b. La Haye, Fr. (1596-1650).
- DE SOTO**, Hernando (explorer); b. Barcarota, Sp. (1500?-1542).
- DE VOTO**, Bernard Augustine (author); b. Ogden, Utah (1897-1955).
- DEWEY**, George (naval officer); b. Montpelier, Vt. (1837-1917).
- DEWEY**, John (philosopher & educator); b. Burlington, Vt. (1859-1952).
- DICKENS**, Charles John Huffam (novelist); b. Portsea, Eng. (1812-1870).
- DICKINSON**, Emily Elizabeth (poet); b. Amherst, Mass. (1830-1886).
- DIODEGENES** (philosopher); b. Sinope, Asia Minor (412?-323 B.C.).
- DIOR**, Christian (fashion designer); b. Granville, Normandy, Fr. (1905-1957).
- DISRAELI**, Benjamin (statesman); b. London, Eng. (1804-1881).
- DODGSON**, C. L. *See* Carroll, Lewis.
- DONAT**, Robert (actor); b. Withington, Eng. (1905-1958).
- DONNE**, John (poet); b. London, Eng. (1573-1631).
- DORSEY**, Jimmy (James Francis Dorsey) (band leader); b. Shenandoah, Pa. (1904-1957).
- DORSEY**, Tommy (Thomas Francis Dorsey, Jr.) (band leader); b. Mahanoy Plane, Pa. (1905-1956).
- DOSTOEVSKI**, Fyodor Mikhailovich (novelist); b. Moscow, Rus. (1821-1881).
- DOUGLAS**, Stephen Arnold (politician); b. Brandon, Vt. (1813-1861).

DOYLE, Sir Arthur Conan (novelist & spiritualist); b. Edinburgh, Scot. (1859-1930).

DRAKE, Sir Francis (navigator); b. Tavistock, Devons., Eng. (1545?-1596).

DRAPER, Ruth (actress); b. New York City (1884-1956).

DREISER, Theodore (novelist); b. Terre Haute, Ind. (1871-1945).

DRESSLER, Marie (Lella Koerber) (actress); b. Cobourg, Ont., Can. (1869-1934).

DREYFUS, Alfred (French army officer); b. Alsace (1859-1935).

DRYDEN, John (poet); b. Northamptonshire, Eng. (1631-1700).

DULLES, John Foster (U. S. statesman); b. Washington, D. C. (1888-1959).

DUMAS, Alexandre (called Dumas père) (novelist); b. Villers-Cotterets, Fr. (1802-1870).

DUMAS, Alexandre (called Dumas fils) (novelist); b. Paris, Fr. (1824-1895).

DU MAURIER, George Louis Palmella Busson (novelist); b. Paris, Fr. (1834-1896).

DUNCAN, Isadora (dancer); b. San Francisco, Calif. (1878-1927).

DUSE, Eleonora (actress); b. Chioggia, It. (1859-1924).

DVOŘÁK, Antonín (composer); b. Mühlihausen, Bohemia (1841-1904).

EARHART, Amelia (aviator); b. Atchison, Kans. (1898-1937).

EDDY, Mary Morse (née Baker) (religious leader); b. Bow, N. H. (1821-1910).

EDISON, Thomas Alva (inventor); b. Milan, Ohio (1847-1931).

EDMAN, Irwin (philosopher); b. New York City (1896-1954).

EHRLICH, Paul (bacteriologist); Silesia prov., Prus. (1854-1915).

EINSTEIN, Albert (physicist); b. Ulm, Ger. (1879-1955).

ELGAR, Sir Edward (composer); b. Worcester, Eng. (1857-1934).

ELIOT, George (Mary Ann Evans) (novelist); b. Warickshire, Eng. (1819-1880).

EMERSON, Ralph Waldo (philosopher & poet); b. Boston, Mass. (1803-1882).

ENESCO, Georges (composer); b. Dorohoi, Rum. (1881-1955).

ENGELS, Friedrich (Socialist writer); b. Barmen, Ger. (1820-1895).

EPICURUS (philosopher); b. Samos (341-270 B.C.).

EPSTEIN, Sir Jacob (sculptor); b. New York City (1880-1959).

ERASMUS, Desiderius (Gerhard Gerhards) (scholar); b. Rotterdam (1466?-1536).

ERICSON, Lief (navigator) (c.10th cent. A.D.).

EUCLID (mathematician) (c.300 B.C.).

EURIPIDES (dramatist); b. Salamis (c. 484-407 B.C.).

FAIRBANKS, Douglas (actor); b. Denver, Colo. (1883-1939).

FALLA, Manuel de (composer); b. Cadiz, Sp. (1876-1946).

FARADAY, Michael (physicist); b. Newington, Sur., Eng. (1791-1867).

FERMI, Enrico (physicist); b. Rome, It. (1901-1954).

FIELD, Eugene (poet); b. St. Louis, Mo. (1850-1895).

FIELD, Marshall, III (publisher & philanthropist); b. Chicago, Ill. (1893-1956).

FIELDING, Henry (novelist); b. nr. Glastonbury, Som., Eng. (1707-1754).

FIELDS, W. C. (Claude William Dukenfield) (actor); b. Philadelphia, Pa. (1880-1946).

FISKE, Minnie Maddern (née Davey) (actress); b. New Orleans, La. (1865-1932).

FITZGERALD, Francis Scott Key (novelist); b. St. Paul, Minn. (1896-1940).

FITZSIMMONS, Robert Prometheus (boxer); b. Cornwall, Eng. (1862-1917).

FLAUBERT, Gustave (novelist); b. Rouen, Fr. (1821-1880).

FLEMING, Sir Alexander (bacteriologist); b. Lochfield, Scot. (1881-1955).

FORD, Henry (industrialist); b. Greenfield, Mich. (1863-1947).

FOSTER, Stephen Collins (composer); b. nr. Pittsburgh, Pa. (1826-1864).

FRANCE, Anatole (Jacques Anatole François Thibault) (author); b. Paris (1844-1924).

FRANKLIN, Benjamin (statesman & scientist); b. Boston, Mass. (1706-1790).

FRAZER, Sir James George (anthropologist); b. Glasgow, Scot. (1854-1941).

FREUD, Sigmund (psychoanalyst); b. Freiberg, Moravia (1856-1939).

FULTON, Robert (inventor); b. Lancaster Co., Pa. (1765-1815).

GAINSBOROUGH, Thomas (painter); b. Sudbury, Suff., Eng. (1727-1788).

GALILEI, Galileo (astronomer & physicist); b. Pisa, It. (1564-1642).

GALSWORTHY, John (novelist & dramatist); b. Coombe, Sur., Eng. (1867-1933).

GANDHI, Mohandas Karamchand (called Mahatma Gandhi) (Hindu leader); b. Porbandar, India (1869-1948).

GARIBALDI, Giuseppe (Italian nationalist leader); b. Nice, Fr. (1807-1882).

GARRICK, David (actor); b. Hereford, Heref., Eng. (1717-1779).

GARRISON, William Lloyd (abolitionist); b. Newburyport, Mass. (1805-1879).

GAUGUIN, Eugène Henri Paul (painter); b. Paris, Fr. (1848-1903).

GAUTAMA BUDDHA (Prince Siddhartha) (philosopher); b. Kapilavastu, India (563?-483 B.C.).

GEDDES, Norman Bel (stage designer); b. Adrian, Mich. (1893-1958).

GEHRIG, Lou (Henry Louis Gehrig) (baseball player); b. New York City (1903-1941).

GENGHIS KHAN (Temujin) (conqueror); b. nr. Lake Balkal in Asia (1162-1227).

GEORGE, Henry (economist); b. Philadelphia, Pa. (1839-1897).

GERONIMO (Goyathlay) (Apache chieftain); b. Arizona (1829-1909).

GERSHWIN, George (composer); b. Brooklyn, N. Y. (1898-1937).

GIBBON, Edward (historian); b. Putney, Eng. (1737-1794).

GIBSON, Charles Dana (illustrator); b. Roxbury, Mass. (1867-1944).

GIDE, André (author); b. Paris, Fr. (1869-1951).

- GILBERT**, Sir William Schwenck (dramatist & librettist); b. London, England (1836-1911).
- GIOTTO**, di Bondone (painter); b. Vespignamo, It. (1267?-1337).
- GLADSTONE**, William Ewart (statesman); b. Liverpool, Eng. (1809-1898).
- GLEASON**, James (actor); b. New York City (1836-1959).
- GLUCK**, Christoph Willibald (composer); b. Erasbach, Bavaria (1714-1787).
- GOEBBELS**, Joseph Paul (Nazi leader); b. Rheydt, Ger. (1897-1945).
- GOERING**, Hermann (Nazi leader); b. Rosenheim, Bavaria (1893-1946).
- GOETHALS**, George Washington (engineer); b. Brooklyn, N. Y. (1858-1928).
- GOETHE**, Johann Wolfgang von (poet); b. Frankfurt am Main, Ger. (1749-1832).
- GOGH**, Vincent van (painter); b. Groot-Zundert, Brabant, Hol. (1853-1890).
- GOGOL**, Nikolai Vasilievich (novelist); b. nr. Mirgorod, Poltava, Ukr. (1809-1852).
- GOLDSMITH**, Oliver (dramatist & poet); b. County Longford, Ire. (1728-1774).
- GOMPERS**, Samuel (labor leader); b. London, Eng. (1850-1924).
- GOODYEAR**, Charles (inventor); b. New Haven, Conn. (1800-1860).
- GORKI**, Maxim (Alexei Maximovich Peshkov) (author); b. Nizhni Novgorod, Rus. (1868-1936).
- GOULD**, Jay (Jason) (financier); b. Roxbury, N. Y. (1836-1892).
- GOUNOD**, Charles François (composer); b. Paris, Fr. (1818-1893).
- GOYA Y LUCIENTES**, Francisco José de (painter); b. Fuendetodos, Sp. (1746-1828).
- GRAY**, Thomas (poet); b. London, Eng. (1716-1771).
- GRECO**, El (Domenicos Theotocopoulos) (painter); b. Candia, Crete (c.1542-1614).
- GREELEY**, Horace (journalist & politician); b. Amherst, N. H. (1811-1872).
- GRIEG**, Edvard Hagerup (composer); b. Bergen, Nor. (1843-1907).
- GRIFFITH**, David Lewelyn Wark (movie producer); b. La Grange, Ky. (1875-1948).
- GRIMM**, Jacob (mythologist); b. Hanau, Ger. (1785-1863).
- GRIMM**, Wilhelm (mythologist); b. Hanau, Ger. (1786-1859).
- GUITYRY**, Sacha (Alexandre) (actor & movie director); b. St. Petersburg, Rus. (1885-1957).
- GUTENBERG**, Johann (printer); b. Mainz, Ger. (1400?-1468).
- HALE**, Nathan (American Revolutionary officer); b. Coventry, Conn. (1755-1776).
- HALS**, Frans (painter); b. Antwerp, Hol. (1580?-1666).
- HAMILTON**, Alexander (statesman); b. Leeward Is. (1757?-1804).
- HANCOCK**, John (statesman); b. Braintree, Mass. (1737-1793).
- HANDEL**, George Frederick (Georg Friedrich Händel) (composer); b. Halle, Ger. (1685-1759).
- HANDY**, William Christopher (blues composer); b. Florence, Ala. (1873-1958).
- HANNIBAL** (Carthaginian general) (247-183 B.C.).
- HARDY**, Thomas (novelist); b. Dorsetshire, Eng. (1840-1928).
- HARLOW**, Jean (Harlean Carpenter) (actress); b. Kansas City, Mo. (1911-1937).
- HARTE**, Bret (Francis Brett Harte) (author); b. Albany, N. Y. (1836-1902).
- HARVEY**, William (physician); b. Folkestone, Kent, Eng. (1878-1957).
- HAWTHORNE**, Nathaniel (novelist); b. Salem, Mass. (1804-1864).
- HAY**, John Milton (statesman); b. Salem, Ind. (1838-1905).
- HAYDN**, Franz Joseph (composer); b. Rohrau, Aus. (1732-1809).
- HEARST**, William Randolph (publisher); b. San Francisco, Calif. (1863-1951).
- HEGEL**, Georg Wilhelm Friedrich (philosopher); b. Stuttgart, Ger. (1770-1831).
- HEINE**, Heinrich (Harry) (poet); b. Düsseldorf, Ger. (1797-1856).
- HENRY**, O. (William Sydney Porter) (story writer); b. Greensboro, N. C. (1862-1910).
- HENRY**, Patrick (statesman); b. Hanover Co., Va. (1736-1799).
- HEPPLEWHITE**, George (furniture designer) b. England (?-1786).
- HERBERT**, Victor (composer); b. Dublin, Ire. (1859-1924).
- HEROD** (Herodes) (called Herod the Great) (King of Judea) (73?-4 B.C.).
- HERODOTUS** (historian); b. Halicarnassus, Asia Minor (c.484-425 B.C.).
- HERRIOT**, Édouard (French statesman); b. Troyes, Fr. (1872-1957).
- HERSHOLT**, Jean (actor); b. Copenhagen, Den. (1886-1956).
- HINDENBURG**, Paul von (Paul Ludwig Hans Anton von Beneckendorff und von Hindenburg) (statesman); b. Posen, Prus. (1847-1934).
- HINES**, Duncan (author); b. Bowling Green, Ky. (1880-1959).
- HIPPOCRATES** (physician); b. Kos, Dodecanese (460?-377 B.C.).
- HITLER**, Adolf (German dictator); b. Braunau, Aus. (1889-1945).
- HOFFMANN**, Josef Casimir (pianist); b. Krakow, Pol. (1876-1957).
- HOGARTH**, William (painter & engraver); b. London, Eng. (1697-1764).
- HOLBEIN**, Hans (the Elder) (painter); b. Augsburg, Bavaria (1465?-1524).
- HOLBEIN**, Hans (the Younger) (painter); b. Augsburg, Bavaria (1497?-1543).
- HOLMES**, Oliver Wendell (author); b. Cambridge, Mass. (1809-1894).
- HOLMES**, Oliver Wendell (jurist); b. Boston, Mass. (1841-1935).
- HOMER** (Greek poet) (c.850 B.C.?).
- HOMER**, Winslow (painter); b. Boston, Mass. (1836-1910).
- HONEGGER**, Arthur (composer); b. Le Havre, Fr. (1892-1955).
- HOPPE**, Willie (William Frederick Hoppe) (billiards player); b. Cornwall, N. Y. (1837-1959).
- HORACE** (Quintus Horatius Flaccus) (poet); b. Venosa, Lucania (65-8 B.C.).
- HOUDINI**, Harry (Erich Weiss) (magician); b. Appleton, Wis. (1874-1926).

- HOUSMAN**, Alfred Edward (poet); b. Fock-burg, Worcs., Eng. (1859-1936).
- HOUSTON**, Samuel (political leader); b. Rockbridge Co., Va. (1793-1863).
- HOWARD**, Leslie (actor); b. London, Eng. (1893-1943).
- HOWE**, Elias (inventor); b. Spencer, Mass. (1819-1867).
- HOWELLS**, William Dean (author); b. Martin's Ferry, Ohio (1837-1920).
- HUDSON**, Henry (English navigator) (?-1611).
- HUGHES**, Charles Evans (jurist); b. Glens Falls, N. Y. (1862-1948).
- HUGO**, Victor Marie (author); b. Besançon, Fr. (1802-1885).
- HULL**, Josephine (nee Josephine Sherwood) (actress); b. Newtonville, Mass. (1886-1957).
- HUME**, David (philosopher); b. Edinburgh, Scot. (1711-1776).
- HUSTON**, Walter (Walter Houghston) (actor); b. Toronto, Ont., Can. (1884-1950).
- HUXLEY**, Thomas Henry (biologist); b. Ealing, Eng. (1825-1895).
- IBSEN**, Henrik (dramatist); b. Skien, Nor. (1828-1906).
- INNESS**, George (painter); b. nr. Newburgh, N. Y. (1825-1894).
- IRVING**, Washington (author); b. New York City (1783-1859).
- JACKSON**, Thomas Jonathan (general); b. Clarksburg, Va. (now W. Va.) (1824-1863).
- JAMES**, Henry (novelist); b. New York City (1843-1916).
- JAMES**, Jesse Woodson (outlaw); b. Clay Co., Mo. (1847-1882).
- JAMES**, William (psychologist); b. New York City (1842-1910).
- JANIS**, Elsie (Elsie Bierbower) (actress); b. Columbus, Ohio (1889-1956).
- JAY**, John (statesman & jurist); b. New York City (1745-1829).
- JEFFRIES**, James J. (boxer); b. Carroll, Ohio (1875-1953).
- JENNER**, Edward (physician); Berkeley, Glos., Eng. (1749-1823).
- JOAN OF ARC** (Jeanne d'Arc) (saint & patriot); b. Domremy-la-Pucelle, Fr. (1412-1431).
- JOHNSON**, Jack (John Arthur Johnson) (boxer); b. Galveston, Tex. (1876-1946).
- JOHNSON**, Samuel (lexicographer & author); b. Lichfield, Staffs., Eng. (1709-1784).
- JOLIOT-CURIE**, Frédéric (physicist); b. Paris, Fr. (1900-1958).
- JOLIOT-CURIE**, Irène (Irène Curie) (physicist); b. France (1897-1956).
- JOLLIET** (or **JOLIET**), Louis (explorer); b. Beaupré, Can. (1645-1700).
- JOLSON**, Al (Asa Yoelson) (actor & singer); b. St. Petersburg, Rus. (1886-1950).
- JONES**, John Paul (John Paul) (naval officer); b. Scotland (1747-1792).
- JONSON**, Ben (Benjamin) (poet & dramatist); b. Westminster, Eng. (1572-1637).
- JOYCE**, James (novelist); b. Dublin, Ire. (1882-1941).
- JOYCE**, Peggy Hopkins (nee Margaret Upton) (actress); b. Norfolk, Va. (1893?-1957).
- JUÁREZ**, Benito Pablo (statesman); b. Guelatao, Oaxaca, Mex. (1806-1872).
- KANT**, Immanuel (philosopher); b. Königsberg, Prus. (1724-1804).
- KEATS**, John (poet); b. London, Eng. (1795-1821).
- KEMAL ATATÜRK** (Mustafa Kemal) (statesman); b. Salonika, Turk. (1881-1938).
- KEPLER**, Johannes (astronomer); b. Well, Württemberg, Ger. (1571-1630).
- KERN**, Jerome David (composer); b. New York City (1885-1945).
- KETTERING**, Charles Franklin (engineer); b. nr. Loudonville, Ohio (1876-1958).
- KEY**, Francis Scott (lawyer); b. Frederick (now Carroll) Co., Md. (1779-1843).
- KEYNES**, John Maynard (economist); b. Cambridge, Eng. (1883-1946).
- KIDD**, William (called Capt. Kidd) (pirate); b. Greenock, Scot. (1645?-1701).
- KILMER**, Alfred Joyce (poet); b. New Brunswick, N. J. (1886-1918).
- KIPLING**, Rudyard (author); b. Bombay, India (1865-1936).
- KNOX**, John (religious reformer); b. Haddington, E. Lothian, Scot. (1505-1572).
- KOSCIUSKO**, Thaddeus (Tadeusz Andrzej Bonawentura Kosciuszko) (military officer); b. province of Lithuania, Poland (1746-1817).
- KOUSSEVITZKY**, Serge (Sergel) Alexandrovitch (orchestra conductor); b. Russia (1874-1951).
- KUBLAI KHAN** (Mongol conqueror) (1216-1294).
- LAFAYETTE**, Marquis de (Marie Joseph Paul Yves Roch Gilbert du Motier) (military officer); b. Auvergne, Fr. (1757-1834).
- LA FOLLETTE**, Robert Marin (politician); b. Primrose, Wis. (1855-1925).
- LA GUARDIA**, Fiorello Henry (politician); b. New York City (1882-1947).
- LAMARCK**, Chevalier de (Jean Baptiste Pierre Antoine de Monet) (naturalist); b. Bazantin, Picardy (1744-1829).
- LAMB**, Charles (essayist); b. London, Eng. (1775-1834).
- LANDIS**, Kenesaw Mountain (jurist); b. Millville, Ohio (1866-1944).
- LANGTRY**, Lily (nee Emily Le Breton) (actress); b. island of Jersey (1852-1929).
- LAO-TZU** (or **LAO-TSE**) (Li Erh) (philosopher); b. Honan prov., China (c.604-531 B.C.).
- LARDNER**, Ring (Ringgold Willmer Lardner) (story writer); b. Niles, Mich. (1885-1933).
- LA SALLE**, Sieur de (Robert Caveller) (explorer); b. Rouen, Fr. (1643-1687).
- LAUDER**, Sir Harry (Harry MacLennan) (singer); b. Portobello, Scot. (1870-1950).
- LAVOISIER**, Antoine Laurent (chemist); b. Paris, Fr. (1743-1794).
- LAWRENCE**, David Herbert (novelist); b. Nottingham, Eng. (1885-1930).
- LAWRENCE**, Gertrude (Gertrud Klasen) (actress); b. London, Eng. (1900-1952).
- LAWRENCE OF ARABIA** (Thomas Edward Lawrence; later changed name to Shaw); (author & soldier); b. Portmadoc, Wales (1888-1935).
- LEAR**, Edward (nonsense poet); b. London, Eng. (1812-1888).

- LEE, Robert Edward (Confederate general); b. Stratford Estate, Va. (1807-1870).
- LEHÁR, Franz (composer); b. Komárom, Hung. (1870-1948).
- LENIN, Nikolai (Vladimir Ilich Ulyanov) (statesman); b. Simbirsk, Rus. (1870-1924).
- LEONARD, Benny (Benjamin Leiner) (boxer); b. New York City (1896-1947).
- LEWIS, Meriwether (explorer); b. Albemarle Co., Va. (1774-1809).
- LEWIS, Sinclair (novelist); b. Sauk Centre, Minn. (1885-1951).
- LIND, Jenny (Johanna Maria Lind) (soprano); b. Stockholm, Swed. (1820-1887).
- LISTER, Joseph (surgeon); b. Upton, Essex, Eng. (1827-1912).
- LISZT, Franz (composer & pianist); b. Raiding, Hung. (1811-1886).
- LIVINGSTONE, David (missionary & explorer); b. Lanarkshire, Scot. (1813-1873).
- LLOYD GEORGE, David (statesman); b. Manchester, Eng. (1863-1945).
- LOCKE, John (philosopher); b. Somersetshire, Eng. (1632-1704).
- LODGE, Henry Cabot (legislator); b. Boston, Mass. (1850-1924).
- LOMBARD, Carole (Carol Jane Peters) (actress); b. Ft. Wayne, Ind. (1908-1942).
- LOMBROSO, Cesare (criminologist); b. Verona, It. (1836-1909).
- LONDON, Jack (John Griffith London) (novelist); b. San Francisco, Calif. (1876-1916).
- LONG, Huey Pierce (politician); b. Winnfield, La. (1893-1935).
- LONGFELLOW, Henry Wadsworth (poet); b. Portland, Maine (1807-1882).
- LOWELL, Amy (poet); b. Brookline, Mass. (1874-1925).
- LOWELL, James Russell (poet); b. Cambridge, Mass. (1819-1891).
- LOYOLA, St. Ignatius of (Íñigo de Oñez y Loyola) (founder of Jesuits); b. Guipuzcoa prov., Sp. (1491-1556).
- LUBITSCH, Ernst (movie director); b. Berlin, Ger. (1892-1947).
- LUDENDORFF, Erich Friedrich Wilhelm (general); b. Kruszevnia, Ger. (1865-1937).
- LUTHER, Martin (religious reformer); b. Eisenach, Ger. (1483-1546).
- MacARTHUR, Charles (dramatist); b. Scranton, Pa. (1895-1956).
- MACAULAY, Thomas Babington (author); b. Leicestershire, Eng. (1800-1859).
- MacDONALD, James Ramsay (statesman); b. Lossiemouth, Scot. (1866-1937).
- MacDOWELL, Edward Alexander (composer); b. New York City (1861-1908).
- MACFADDEN, Bernarr (physical culturist); b. nr. Mill Spring, Mo. (1868-1955).
- MACHIAVELLI, Niccolò (political philosopher); b. Florence (1469-1527).
- MACK, Connie (Cornelius Alexander McGillicuddy) (baseball executive); b. East Brookfield, Mass. (1862-1956).
- MAETERLINCK, Count Maurice (author); b. Ghent, Belg. (1862-1949).
- MAGELLAN, Ferdinand (Fernando de Magalhães) (navigator); b. Sabrosa, Port. (1480?-1521).
- MAGSAYSAY, Ramón (statesman); b. Iba, Luzon, Philippines (1907-1957).
- MAHAN, Alfred Thayer (naval historian); b. West Point, N. Y. (1840-1914).
- MAHLER, Gustav (composer & conductor); b. Kalischt, Bohemia (1860-1911).
- MANET, Édouard (painter); b. Paris, Fr. (1832-1883).
- MANN, Horace (educator); b. Franklin, Mass. (1796-1859).
- MANN, Thomas (novelist); b. Lübeck, Ger. (1875-1955).
- MANSFIELD, Katherine (story writer); b. Wellington, N. Z. (1888-1923).
- MARAT, Jean Paul (French revolutionist); b. Boudry, Neuchâtel, Switzerland (1743-1793).
- MARCONI, Guglielmo (inventor); b. Bologna, It. (1874-1937).
- MARCUS AURELIUS (Marcus Annius Verus) (Roman emperor); b. Rome (121-180).
- MARIE ANTOINETTE (Joséphine Jeanne Marie Antoinette) (Queen of France); b. Vienna, Aus. (1755-1793).
- MARKHAM, Charles Edwin (poet); b. Oregon City, Ore. (1852-1940).
- MARLOWE, Christopher (dramatist); b. Canterbury, Eng. (1564-1593).
- MARLOWE, Julia (Sarah Frances Frost) (actress); b. Cumberlandshire, Eng. (1866-1950).
- MARQUETTE, Jacques (missionary & explorer); b. Laon, Fr. (1637-1675).
- MARSHALL, John (jurist); b. nr. Germantown, Va. (1755-1835).
- MARX, Karl (Socialist writer); b. Treves, Prus. (1818-1883).
- MARY STUART (Queen of Scotland); b. Linlithgow, Scot. (1542-1587).
- MASARYK, Thomas Garrigue (statesman); b. Hodonin, Moravia (1850-1937).
- MASSENET, Jules Émile Frédéric (composer); b. Montaud, Fr. (1842-1912).
- MASTERS, Edgar Lee (poet); b. Garnett, Kans. (1869-1950).
- MATISSE, Henri (painter); b. Cateau, Fr. (1869-1954).
- MAUPASSANT, Henri René Albert Guy de (story writer); b. Normandy, Fr. (1850-1893).
- MAXIMILIAN (Ferdinand Maximilian Joseph) (Emperor of Mexico); b. Vienna, Aus. (1832-1867).
- MAXWELL, James Clerk (physicist); b. Edinburgh, Scot. (1831-1879).
- McCARTHY, Joseph Raymond (U. S. Senator); b. Grand Chute, Wis. (1908-1957).
- McCORMACK, John (tenor); b. Athlone, Ire. (1884-1945).
- McCORMICK, Cyrus Hall (inventor); b. Rockbridge Co., Va. (1809-1884).
- McGRAVE, John Joseph (baseball manager); b. Truxton, N. Y. (1873-1934).
- MEDICI, Lorenzo de' (called Lorenzo the Magnificent) (Florentine ruler); b. Florence (1449-1492).
- MELBA, Nellie (Helen Porter Mitchell) (soprano); b. nr. Melbourne, Australia (1861-1931).
- MELLON, Andrew William (financier); b. Pittsburgh, Pa. (1855-1937).

- MELVILLE**, Herman (novelist); b. New York City (1819-1891).
- MENCKEN**, Henry Louis (author); b. Baltimore, Md. (1880-1956).
- MENDEL**, Gregor Johann (botanist); b. Heinzendorf, Silesia (1822-1884).
- MENDELEYEV**, Dmitri Ivanovich (chemist); b. Tobolsk, Siberia (1834-1907).
- MENDELSSOHN-BARTHOLDY**, Jakob Ludwig Felix (composer); b. Hamburg, Ger. (1809-1847).
- MESMER**, Franz Anton (physician); b. Itz-mang, nr. Constance, Baden (1733-1815).
- METTERNICH**, Prince Klemens Wenzel Nepomuk Lothar von (statesman); b. Coblenz, Aus. (1773-1859).
- MICHELANGELO BUONARROTI** (painter & sculptor); b. Caprese, Tuscany, It. (1475-1564).
- MILL**, John Stuart (philosopher); b. London, Eng. (1806-1873).
- MILLAY**, Edna St. Vincent (poet); b. Rock-land, Maine (1892-1950).
- MILLER**, Glenn (band leader); b. Clarinda, Iowa (1909?-1944).
- MILNE**, Alan Alexander (author); b. London, Eng. (1882-1956).
- MILTON**, John (poet); b. London, Eng. (1608-1674).
- MINUIT**, Peter (Governor of New Amster-dam); b. Wesel, Rhenish Prussia (1580-1638).
- MITCHELL**, Margaret (novelist); b. Atlanta, Ga. (1900-1949).
- MOHAMMED** (prophet); b. Mecca, Arabia (570-632).
- MOLIÈRE** (Jean Baptiste Poquelin) (drama-tist); b. Paris, Fr. (1622-1673).
- MOLNÁR**, Ferenc (dramatist); b. Budapest, Hung. (1878-1952).
- MONET**, Claude (painter); b. Paris, Fr. (1840-1926).
- MONTAIGNE**, Michel Eyquem de (essayist); b. nr. Bordeaux, Fr. (1533-1592).
- MONTEZUMA II** (Aztec emperor); b. Mexico (1480?-1520).
- MOORE**, Thomas (poet); b. Dublin, Ire. (1779-1852).
- MORE**, Sir Thomas (statesman & author); b. London, Eng. (1478-1535).
- MORGAN**, Helen (singer); b. Danville, Ohio (1900?-1941).
- MORGAN**, John Pierpont (financier); b. Hart-ford, Conn. (1837-1913).
- MORLEY**, Christopher Darlington (novelist); b. Haverford, Pa. (1890-1957).
- MORSE**, Samuel Finley Breese (painter & in-ventor); b. Charlestown, Mass. (1791-1872).
- MOUSSORGSKY**, Modest Petrovich (com-poser); b. Karev, Rus. (1839-1881).
- MOZART**, Wolfgang Amadeus (Johannes Chrysostomus Wolfgang Theophilus Moz-zart) (composer); b. Salzburg, Aus. (1756-1791).
- MURILLO**, Bartolomé Esteban (painter); b. Seville, Sp. (1617-1682).
- MUSSOLINI**, Benito (Italian dictator); b. Dovia, Forlì, It. (1883-1945).
- NAPOLEON BONAPARTE** (Emperor of the French); b. Ajaccio, Corsica (1769-1821).
- NAST**, Thomas (cartoonist); b. Landau, Ger. (1840-1902).
- NATHAN**, George Jean (theater critic); b. Ft. Wayne, Ind. (1882-1958).
- NATION**, Carry Amelia (temperance leader); b. Garrard Co., Ky. (1846-1911).
- NELSON**, Viscount Horatio (naval officer); b. Burnham Thorpe, Norf., Eng. (1758-1805).
- NERO** (Nero Claudius Caesar Drusus Ger-manicus) (Roman emperor); b. Antium, Latium, It. (A.D. 37-68).
- NEWTON**, Sir Isaac (mathematician & sci-entist); b. nr. Grantham, Lincs., Eng. (1642-1727).
- NIETZSCHE**, Friedrich Wilhelm (philoso-pher); b. nr. Lützen, Saxony (1844-1900).
- NIGHTINGALE**, Florence (nurse); b. Flor-ence, It. (1820-1910).
- NIJINSKY**, Waslav (dancer); b. Warsaw, Pol. (1890-1950).
- NOBEL**, Alfred Bernhard (industrialist); b. Stockholm, Swed. (1833-1896).
- NOSTRADAMUS** (Michel de Notredame) (as-trologer); b. St. Remi, Fr. (1503-1566).
- OCHS**, Adolph Simon (publisher); b. Cin-cinnati, Ohio (1858-1935).
- OFFENBACH**, Jacques (composer); b. Cologne, Ger. (1819-1880).
- OMAR KHAYYÁM** (poet & astronomer); b. Nishapur, Khurasan, Persia (died c. 1123).
- O'NEILL**, Eugene Gladstone (dramatist); b. New York City (1888-1953).
- OROZCO**, José Clemente (painter); b. Zapot-lán, Jalisco, Mex. (1883-1949).
- OSLER**, Sir William (physician); b. Bond-head, Ont., Can. (1849-1919).
- OTT**, Mel (Melvin Thomas Ott) (baseball player); b. Gretna, La. (1909-1958).
- IVID** (Publius Ovidius Naso) (poet); b. Sul-mona, It. (43 B.C.-?A.D. 17).
- PADEREWSKI**, Ignace Jan (pianist & states-man); b. Podolia prov., Pol. (1860-1941).
- PAGANINI**, Nicolò (violinist); b. Genoa, It. (1782-1840).
- PAINE**, Thomas (political philosopher); b. Thetford, Eng. (1737-1809).
- PARNELL**, Charles Stewart (Irish nationalist leader); b. Avondale, Wicklow, Ire. (1846-1891).
- PASCAL**, Blaise (philosopher); b. Clermont, Fr. (1623-1662).
- PASTEUR**, Louis (chemist); b. Dole, Jura, Fr. (1822-1895).
- PAVLOV**, Ivan Petrovich (physiologist); b. Ryazan dist., Rus. (1849-1936).
- PAVLOVA**, Anna (ballerina); b. St. Peters-burg, Rus. (1885-1931).
- PEARY**, Robert Edwin (explorer); b. Cres-son, Pa. (1856-1920).
- PENN**, William (American colonist); b. Lon-don, Eng. (1644-1718).
- PEPYS**, Samuel (diarist); b. Bampton, Eng. (1633-1703).
- PERICLES** (statesman); b. Athens (died 429 B.C.).
- PERÓN**, María Eva Duarte de (political leader); b. Los Toldos, Arg. (1919-1952).
- PERSHING**, John Joseph (general); b. Linn Co., Mo. (1860-1948).

- PETRARCH** (Francesco Petrarca) (poet); b. Arezzo, It. (1304-1374).
- PINZA**, Ezio (basso); b. Rome, It. (1892-1957).
- PIRANDELLO**, Luigi (dramatist & novelist); b. nr. Grgenti, Sicily (1867-1936).
- PITT**, William ("Younger Pitt") (statesman); b. nr. Bromley, Eng. (1759-1806).
- PIUS XII** (Eugenio Pacelli) (Pope); b. Rome, It. (1876-1958).
- PIZARRO**, Francisco (explorer); b. Trujillo, Sp. (1470?-1541).
- PLATO** (Aristocles) (philosopher); b. Athens (?) (427?-347 B.C.).
- PLUTARCH** (biographer); b. Chaeronea, Boeotia (A.D. 46?-120).
- POCAHONTAS** (Matoaka) (American Indian princess); b. Virginia (?) (1595?-1617).
- POE**, Edgar Allan (poet & story writer); b. Boston, Mass. (1809-1849).
- POLO**, Marco (traveler); b. Venice (1254?-1324).
- POMPEY** (Gnaeus Pompeius Magnus) (general); b. Rome (?) (106-48 B.C.).
- PONCE DE LEÓN**, Juan (explorer); b. Servas, Sp. (1460?-1521).
- POPE**, Alexander (poet); b. London, Eng. (1688-1744).
- POST**, Wiley (aviator); b. Texas (1900-1935).
- POWER**, Tyrone Edmund (actor); b. Cincinnati, Ohio (1914-1958).
- PRIESTLEY**, Joseph (chemist); b. nr. Leeds, Eng. (1733-1804).
- PROKOFIEFF**, Sergel Sergeevich (composer); b. St. Petersburg, Rus. (1891-1953).
- PROUST**, Marcel (novelist); b. Paris, Fr. (1871-1922).
- PTOLEMY** (Claudius Ptolemaeus) (astronomer & geographer); b. Ptolemais Hermii (2nd century A.D.).
- PUCCINI**, Giacomo (composer); b. Lucca, It. (1858-1924).
- PULITZER**, Joseph (publisher); b. Makó, Hung. (1847-1911).
- PUSHKIN**, Alexander Sergeevich (poet & dramatist); b. Moscow, Rus. (1799-1837).
- PYLE**, Ernest Taylor (journalist); b. Dana, Ind. (1900-1945).
- PYTHAGORAS** (mathematician & philosopher); b. Samos (6th century B.C.).
- RABELAIS**, François (satirist); b. nr. Chinon, Fr. (1494?-1553).
- RACHMANINOFF**, Sergel Wassilievitch (pianist & composer); b. Oneg Estate, Novgorod, Rus. (1873-1943).
- RACINE**, Jean Baptiste (dramatist); b. La Ferté-Milon, Fr. (1639-1699).
- RALEIGH**, Sir Walter (courtier & navigator); b. London, Eng. (1552?-1618).
- RAPHAEL** (Raffaello Santi) (painter); b. Urbino, It. (1483-1520).
- RASPUTIN**, Grigori Efimovich (monk); b. Tobolsk prov., Siberia (1871?-1916).
- RAVEL**, Maurice Joseph (composer); b. Ciboure, Fr. (1875-1937).
- REED**, Walter (army surgeon); b. Belroi, Va. (1851-1902).
- REINHARDT**, Max (Max Goldmann) (theater producer); b. nr. Vienna, Aus. (1873-1943).
- REMBRANDT** (Harmensz van Rijn Rembrandt) (painter); b. Leyden, Hol. (1606-1669).
- RENOIR**, Pierre Auguste (painter); b. Limoges, Fr. (1841-1919).
- RESPIGHI**, Ottorino (composer); b. Bologna, It. (1879-1936).
- REVERE**, Paul (silversmith); b. Boston, Mass. (1735-1818).
- REYNOLDS**, Sir Joshua (painter); b. nr. Plymouth, Eng. (1723-1792).
- RHODES**, Cecil John (South African statesman); b. Bishop Stortford, Herts., Eng. (1853-1902).
- RICE**, Grantland (sports writer); b. Murfreesboro, Tenn. (1880-1954).
- RICHELIEU**, Duc de (Armand Jean du Plessis) (cardinal); b. Paris (1585-1642).
- RILEY**, James Whitcomb (poet); b. Greenfield, Ind. (1849-1916).
- RIMSKY-KORSAKOV**, Nikolai Andreevich (composer); b. Tikhvin, Rus. (1844-1908).
- RINEHART**, Mary (nee Roberts) (novelist); b. Pittsburgh, Pa. (?-1958).
- RIVERA**, Diego (painter); b. Guanajuato, Mex. (1886-1957).
- ROBESPIERRE**, Maximilien François Marie Isidore de (French Revolutionist); b. Arras, Fr. (1758-1794).
- ROBINSON**, Bill (Luther) (dancer); b. Richmond, Va. (1878-1949).
- ROBINSON**, Edwin Arlington (poet); b. Head Tide, Maine (1869-1935).
- ROCKEFELLER**, John Davison (capitalist); b. Richford, N. Y. (1839-1937).
- ROCKNE**, Knute Kenneth (football coach); b. Voss, Nor. (1888-1931).
- RODIN**, François Auguste René (sculptor); b. Paris, Fr. (1840-1917).
- ROENTGEN**, Wilhelm Konrad (physicist); b. Lennep, Prus. (1845-1923).
- ROGERS**, Will (William Penn Adair Rogers) (humorist); b. Oologah, Okla. (1879-1935).
- ROLLAND**, Romain (author); b. Clamecy, Fr. (1866-1944).
- ROMBERG**, Sigmund (composer); b. Hungary (1887-1951).
- ROSSETTI**, Dante Gabriel (painter & poet); b. London, Eng. (1828-1882).
- ROSSINI**, Gioacchino Antonio (composer); b. Pesaro, It. (1792-1868).
- ROSTAND**, Edmond (dramatist); b. Marseilles, Fr. (1868-1918).
- ROUSSEAU**, Jean Jacques (philosopher); b. Geneva, Switz. (1712-1778).
- RUBENS**, Peter Paul (painter); b. Siegen, Westphalia (1577-1640).
- RUNYON**, Alfred Damon (journalist); b. Manhattan, Kans. (1884-1946).
- RUSKIN**, John (art critic); b. London, Eng. (1819-1900).
- RUSSELL**, Lillian (Helen Louise Leonard) (soprano); b. Clinton, Iowa (1861-1922).
- RUTH**, Babe (George Herman Ruth) (baseball player); b. Baltimore, Md. (1895-1948).
- SAINT-GAUDENS**, Augustus (sculptor); b. Dublin, Ire. (1848-1907).
- SAINT-SAËNS**, Charles Camille (composer); b. Paris, Fr. (1835-1921).

- SAND**, George (Amandine Lucille Aurore Du-devant, nee Dupin) (novelist); b. Paris, Fr. (1804-1876).
- SANTAYANA**, George (philosopher); b. Madrid, Sp. (1863-1952).
- SAPPHO** (poet); b. Lesbos (lived c.600 B.C.).
- SARGENT**, John Singer (painter); b. Florence, It., of American parents (1856-1925).
- SARTO**, Andrea del (Andrea Domenico d'Agnolo di Francesco) (painter); b. Florence (1486-1531).
- SAUL** (King of Israel) (11th century B.C.).
- SCHILLER**, Johann. Christoph Friedrich von (dramatist & poet); b. Marbach, Wurttemberg, Ger. (1759-1805).
- SCHÖNBERG**, Arnold (composer); Vienna, Aus. (1874-1951).
- SCHOPENHAUER**, Arthur (philosopher); b. Danzig (1788-1860).
- SCHUBERT**, Franz Peter (composer); b. Vienna, Aus. (1797-1826).
- SCHUMANN**, Robert Alexander (composer); b. Zwickau, Saxony, Ger. (1810-1856).
- SCHUMANN-HEINK**, Ernestine (nee Roessler) (contralto); b. nr. Prague, Boh. (1861-1936).
- SCHURZ**, Carl (U. S. army officer & journalist); b. nr. Cologne, Ger. (1829-1906).
- SCOTT**, Robert Falcon (explorer); b. Devonport, Eng. (1868-1912).
- SCOTT**, Sir Walter (novelist); b. Edinburgh, Scot. (1771-1832).
- SHAKESPEARE**, William (dramatist); b. Stratford on Avon, Eng. (1564-1616).
- SHAW**, George Bernard (dramatist); b. Dublin, Ire. (1856-1950).
- SHELLEY**, Percy Bysshe (poet); b. nr. Hortham, Sus., Eng. (1792-1822).
- SHERATON**, Thomas (furniture designer); Stockton-on-Tees, Eng. (1751-1806).
- SHERIDAN**, Richard Brinsley (dramatist); b. Dublin, Ire. (1751-1816).
- SHERMAN**, William Tecumseh (army officer); b. Lancaster, Ohio (1820-1891).
- SHERWOOD**, Robert Emmet (dramatist); b. New Rochelle, N. Y. (1896-1955).
- SIBELIUS**, Jean (Johann Julius Christian Sibelius) (composer); b. Tavastehus, Fin. (1865-1957).
- SKINNER**, Otis (actor); b. Cambridge, Mass. (1858-1942).
- SLOAN**, John (painter); b. Lock Haven, Pa. (1871-1951).
- SMITH**, Adam (economist); b. Kirkcaldy, Fife., Scot. (1723-1790).
- SMITH**, Alfred Emanuel (politician); b. New York City (1873-1944).
- SMITH**, John (American colonist); b. Wiltoughby, Lincs., Eng. (1580-1631).
- SMITH**, Joseph (religious leader); b. Sharon, Vt. (1805-1844).
- SOCRATES** (philosopher); b. Athens (469-399 B.C.).
- SOLOMON** (King of Israel); b. Jerusalem (?) (died c.933 B.C.).
- SOLON** (lawgiver); b. Salamis, Gr. (638?-559 B.C.).
- SOPHOCLES** (dramatist); b. nr. Athens (496?-406 B.C.).
- SOTHERN**, Edward Hugh (actor); b. New Orleans, La. (1859-1933).
- SOUSA**, John Philip (composer); b. Washington, D. C. (1854-1932).
- SPEAKER**, Tris (Tristram E. Speaker) (baseball player); b. Hubbard, Tex. (1888-1958).
- SPENCER**, Herbert (philosopher); b. Derby, Eng. (1820-1903).
- SPENGLER**, Oswald (philosopher); b. Blankenburg, Ger. (1880-1936).
- SPENSER**, Edmund (poet); b. London, Eng. (1552?-1599).
- SPINOZA**, Baruch (philosopher); b. Amsterdam, Hol. (1632-1677).
- STALIN**, Joseph Vissarionovich (Iosif V. Dzhugashvili) (statesman); b. nr. Tiflis, Georgia, Rus. (1879-1953).
- STANISLAVSKI** (Konstantin Sergeevich Alekseev) (stage producer); b. Moscow, Rus. (1863-1938).
- STANLEY**, Sir Henry Morton (John Rowlands) (explorer); b. Denbigh, Wales (1841-1904).
- STEIN**, Gertrude (author); b. Allegheny, Pa. (1874-1946).
- STEINMETZ**, Charles Proteus (engineer); b. Breslau, Ger. (1865-1923).
- STENDHAL** (Marie Henri Beyle) (novelist); b. Grenoble, Fr. (1783-1842).
- STERNE**, Laurence (novelist); b. Clonmel, Ire. (1713-1768).
- STEVENSON**, Robert Louis Balfour (novelist & poet); b. Edinburgh, Scot. (1850-1894).
- STOKES**, Thomas Lunsford, Jr. (journalist); b. Atlanta, Ga. (1898-1958).
- STONE**, Lucy (woman suffragist); b. nr. West Brookfield, Mass. (1818-1893).
- STOWE**, Harriet Elizabeth (nee Beecher) (novelist); b. Litchfield, Connecticut (1811-1896).
- STRADIVARI**, Antonio (violinmaker); b. Cremona, It. (1644-1737).
- STRAUS**, Oskar (composer); b. Vienna, Aus. (1870-1954).
- STRAUSS**, Johann (composer); b. Vienna, Aus. (1825-1899).
- STRAUSS**, Richard (composer); b. Munich, Ger. (1864-1949).
- STUART**, Gilbert Charles (painter); b. Rhode Island (1755-1828).
- STUYVESANT**, Peter (Governor of New Amsterdam); b. W. Friesland, Neth. (1592-1672).
- SULLIVAN**, Sir Arthur Seymour (composer); b. London, Eng. (1842-1900).
- SULLIVAN**, Francis Loftus (actor); b. London, Eng. (1903-1956).
- SULLIVAN**, John Lawrence (boxer); b. Boston, Mass. (1858-1918).
- SUN** Yat-Sen (statesman); b. nr. Macao, China (1866-1925).
- SWIFT**, Jonathan (satirist); b. Dublin, Ire. (1667-1745).
- SWINBURNE**, Algernon Charles (poet); b. London, Eng. (1837-1909).
- SWOPE**, Herbert Bayard (journalist); b. St. Louis, Mo. (1882-1958).
- SYNGE**, John Millington (dramatist); b. nr. Dublin, Ire. (1871-1909).
- TAFT**, Robert Alphonso (legislator); b. Cincinnati, Ohio (1889-1953).
- TAGORE**, Sir Rabindranath (poet); b. Calcutta, India (1861-1941).

- TALLEYRAND-PÉRIGORD**, Charles Maurice de (statesman); b. Paris, Fr. (1754-1838).
- TAMERLANE** (Timur) (Mongol conqueror); b. nr. Samarkand, Sib. (1336?-1405).
- TARKINGTON**, Newton Booth (novelist); b. Indianapolis, Ind. (1869-1946).
- TCHAIKOVSKY** (or **TSCHAIKOWSKY**), Peter (Pëtr) Il'ich (composer); b. Ural region, Rus. (1840-1893).
- TECUMSEH** (Shawnee Indian chief); b. nr. Springfield, Ohio (1768?-1813).
- TENNYSON**, Alfred (1st Baron Tennyson) (poet); b. Somersby, Lincs., Eng. (1809-1892).
- TERRY**, Ellen Alicia (actress); b. Coventry, Eng. (1848-1928).
- TETRAZZINI**, Luisa (soprano); b. Florence, It. (1871-1940).
- THACKERAY**, William Makepeace (novelist); b. Calcutta, India (1811-1863).
- THOMAS**, Dylan Marlais (poet); b. Caermarthenshire, Wales (1914-1953).
- THOREAU**, Henry David (naturalist & author); b. Concord, Mass. (1817-1862).
- THORPE**, Jim (James Francis Thorpe) (athlete); b. nr. Prague, Oklahoma (1888-1953).
- TILDEN**, William Tatem, II (tennis player); b. Philadelphia, Pa. (1893-1953).
- TINTORETTO**, Il (Jacopo Robusti) (painter); b. Venice (1518-1594).
- TITIAN** (Tiziano Vecelli) (painter); b. Pieve di Cadore, Venezia, It. (1477-1576).
- TODD**, Mike (Avrom Goldbogen) (movie producer); b. Minneapolis (1909-1958).
- TOLSTOI**, Count Leo (Lev) Nikolaevich (novelist); b. Tula prov., Rus. (1828-1910).
- TOSCANINI**, Arturo (orchestra conductor); b. Parma, It. (1867-1957).
- TOULOUSE-LAUTREC** (Henri Marie Raymond de Toulouse-Lautrec Monfa) (painter); b. Albi, Fr. (1864-1901).
- TROTSKY**, Leon (Lev Davidovich Bronstein) (statesman); b. Elisavetgrad, Rus. (1879-1940).
- TURGENEV**, Ivan Sergeevich (novelist); b. Orel, Rus. (1818-1883).
- Twain**, Mark (Samuel Langhorne Clemens) (author); b. Florida, Mo. (1835-1910).
- TWEED**, William Marcy (politician); b. New York City (1823-1878).
- VALENTINO**, Rudolph (Rodolpho d'Antonguolla) (actor); b. Castellana, It. (1895-1926).
- VANDENBERG**, Arthur Hendrick (legislator); b. Grand Rapids, Mich. (1884-1951).
- VANDERBILT**, Cornelius (financier); b. Port Richmond, N. Y. (1794-1877).
- VAN DRUTEN**, John William (dramatist); b. London, Eng. (1901-1957).
- VANDYKE** (or **VAN DYCK**), Sir Anthony (painter); b. Antwerp, Hol. (1599-1641).
- VAUGHAN WILLIAMS**, Ralph (composer); b. Down Ampney, Eng. (1872-1958).
- VELÁZQUEZ**, Diego Rodríguez de Silva y (painter); b. Seville, Sp. (1599-1660).
- VERDI**, Giuseppe (composer); b. Roncole, Parma, It. (1813-1901).
- VERMEER**, Jan (or Jan van der Meer van Delft) (painter); b. Delft, Hol. (1632-1675).
- VERNE**, Jules (author); b. Nantes, Fr. (1828-1905).
- VILLA**, Pancho (Doroteo Arango) (bandit); b. Rio Grande, Mex. (1877-1923).
- VILLON**, François (François de Montcorbier) (poet); b. Paris, Fr. (1431-c.1463).
- VINCI**, Leonardo da (painter & scientist); b. Vinci, Tuscany, It. (1452-1519).
- VIRGIL** (or **VERGIL**) (Publius Vergilius Maro) (poet); b. Mantua, Gaul (70-19 B.C.).
- VOLTAIRE** (François Marie Arouet) (author); b. Paris, Fr. (1694-1778).
- VON STROHEIM**, Erich Oswald Hans Carl Maria von Nordenwall (actor); b. Vienna, Aus. (1885-1957).
- WAGNER**, Honus (John Wagner) (baseball player); b. Mansfield, Pa. (1874-1955).
- WAGNER**, Wilhelm Richard (composer); b. Leipzig, Ger. (1813-1883).
- WALTON**, Izaak (author); b. Stafford, Eng. (1593-1683).
- WARD**, Fannie (actress); b. St. Louis, Mo. (1872-1952).
- WASHINGTON**, Booker Tallaferro (educator); b. Franklin Co., Va. (1856-1915).
- WATSON**, Thomas John (industrialist); b. Campbell, N. Y. (1874-1956).
- WATT**, James (inventor); b. Greenock, Scot. (1736-1819).
- WAYNE**, Anthony (military officer); b. Waynesboro, Pa. (1745-1796).
- WEBER**, Karl Maria Friedrich Ernst von (composer); b. nr. Lübeck, Ger. (1786-1826).
- WEBSTER**, Daniel (statesman); b. Salisbury, N. H. (1782-1852).
- WEBSTER**, Noah (lexicographer); b. West Hartford, Conn. (1758-1843).
- WEILL**, Kurt (composer); b. Dessau, Ger. (1900-1950).
- WEIZMANN**, Chaim (Israeli statesman); b. Grodno prov., Rus. (1874-1952).
- WELLINGTON**, Duke of (Arthur Wellesley) (statesman); b. Ireland (1769-1852).
- WELLS**, Herbert George (author); b. Bromley, Kent, Eng. (1866-1946).
- WESLEY**, John (religious leader); b. Lincolnshire, Eng. (1703-1791).
- WESTINGHOUSE**, George (inventor); b. Central Bridge, N. Y. (1846-1914).
- WHARTON**, Edith Newbold (nee Jones) (novelist); b. New York City (1862-1937).
- WHISTLER**, James Abbott McNeill (painter); b. Lowell, Mass. (1834-1903).
- WHITE**, William Allen (journalist); b. Emporia, Kans. (1868-1944).
- WHITMAN**, Walt (Walter) (poet); b. West Hills, N. Y. (1819-1892).
- WHITNEY**, Eli (inventor); b. Westboro, Mass. (1765-1825).
- WHITTIER**, John Greenleaf (poet); b. Haverhill, Mass. (1807-1892).
- WILDE**, Oscar Fingal O'Flahertie Wills (author); b. Dublin, Ire. (1854-1900).
- WILKINS**, Sir George Hubert (explorer); b. Mt. Bryan East, Australia (1888-1958).
- WILLIAMS**, Roger (clergyman); b. London, Eng. (1603?-1683).
- WILLKIE**, Wendell Lewis (lawyer); b. Elwood, Ind. (1892-1944).
- WINTHROP**, John (1st Gov., Mass. Bay Colony); b. Suffolk, Eng. (1588-1649).
- WISE**, Stephen Samuel (rabbi); b. Budapest, Hung. (1874-1949).

WOLFE, Thomas Clayton (novelist); b. Asheville, N. C. (1900-1938).
WOLSEY, Thomas (prelate & statesman); b. Ipswich, Eng. (1475?-1530).
WOOD, Grant (painter); b. Anamosa, Iowa (1892-1942).
WOOLF, Adeline Virginia (nee Stephens) (novelist); b. London, Eng. (1882-1941).
WOOLLCOTT, Alexander (author); b. Phalanx, N. J. (1887-1943).
WORDSWORTH, William (poet); b. Cockermouth, Cumb., Eng. (1770-1850).
WRIGHT, Frank Lloyd (architect); b. Richland Centef, Wis. (1869-1959).
WRIGHT, Orville (inventor); b. Dayton, Ohio (1871-1948).
WRIGHT, Wilbur (inventor); b. Millville, Ind. (1867-1912).

YEATS, William Butler (poet); b. nr. Dublin, Ire. (1865-1939).
YOUNG, Brigham (religious leader); b. Whitingham, Vt. (1801-1877).
YOUNG, Cy (Denton True Young) (baseball player); b. Gilmore, Ohio (1867-1955).
YOUNG, Robert Ralph (railroad executive); b. Canadian, Tex. (1897-1958).

ZAHARIAS, Mildred ("Babe") (nee Didrikson) (athlete); b. Port Arthur, Tex. (1912-1956).
ZIEGFELD, Florenz (theatrical producer); b. Chicago, Ill. (1869-1932).
ZOLA, Emile (novelist); b. Paris, Fr. (1840-1902).
ZOROASTER (religious leader); b. Persia (lived about the 6th century B.C.).

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Hill
Paul Hindemith
Philip James
Otto Luening
Douglas Moore
Arne Oldberg
Walter Piston
Quincy Porter
John Powell
Wallingford Riegger
Richard Rodgers
Bernard Rogers
Carl Ruggles
William Schuman
Roger Sessions
Leo Sowerby
Igor Stravinsky
Deems Taylor
Randall Thompson
Virgil Thomson
Ernst Toch
Edgard Varèse

PARLIAMENTARY PROCEDURE

by

Dan Golenpauf

Parliamentary procedures are rules for the conduct of a meeting in an orderly and democratic manner. Their purpose is to ensure the rule by a majority and to protect the rights of all members of an organization or assembly in meetings and in connection with all activities of the organization. The application of parliamentary rules is solely for this purpose.

Very often, though, individuals employ the rules for a contest of wits. This practice can be interesting and the life of the meeting, but it can also be a nuisance and a field day for parliamentary pests. The degree to which this activity may be tolerated should be dictated by circumstances. A certain amount of indulgence may be necessary because it is part of the game and is inevitably an expression of many egos that meet in a group.

Under no circumstances, however, should a chairman or members permit anyone to use the rules of procedure to trick and confuse members or to impede the function of a meeting. To prevent these occurrences, a knowledge of parliamentary rules is important. We will do our best in the limited space permitted to impart a little learning. (But remember, a little learning is a dangerous thing.) What we are setting forth here should be adequate to take care of most situations in organizations made up of friendly people who want to conduct their business in an orderly, friendly manner.

If it is necessary for you to be a member of a group that is involved in bitter conflicts, then we advise that you go to more technical and authoritative works on parliamentary procedure such as *Robert's Rules of Order*, *Cushing's Manual*, *Sturgis' Standard Code of Parliamentary Procedure* and others. We also suggest that you go to the meetings with a good lawyer and a baseball bat.

HOW TO FORM AN ORGANIZATION

People form or join organizations because they have a common interest or purpose that can best be advanced and attained through group activity. Whether the character of the organization be social, political, educational, communal, fraternal or athletic, its purpose and government are usually expressed in by-laws. They are not required to be elaborate, technical or legal.

BY-LAWS

By-laws should simply state the objects of the organization, the rights and duties of members, the qualifications of members, the number required to constitute a quorum, the dues, the necessary governing officers and how they should be elected, their terms of office, when meetings should be held and where, the order of business and, in the case of large and impersonal organizations, an authority for settling parliamentary disputes. (An organization usually adopts as its guide such works as mentioned heretofore.)

FIRST MEETING

At the first meeting of a group, temporary officers are chosen: a chairman, a secretary and a committee to prepare a draft of by-laws. The meeting is called to order by the member of the group who has assumed the leadership in the formation of the organization. He or she opens the meeting by the simple statement: "I now call the meeting to order," and asks the members to make nominations for chairman. When this announcement is made, members may ask for the floor by raising their hands, and, when recognized, offer a name in nomination. The person presiding can be nominated as can any other member present. Nominations require no seconding. A majority vote is necessary for the election of the chairman. The same procedure is required for the secretary and committee on by-laws.

The officers selected at the first meeting may serve until the next meeting or for a limited period, to be decided by a majority vote of the members present.

SECOND MEETING

At the second meeting, the report of the committee on by-laws is presented to the membership. The entire report may be accepted by a motion to adopt the report. A two-thirds vote is required. If the entire report is not acceptable to the membership, each provision may be considered separately; consideration consists of debating, amending, accepting or rejecting. The vote required on each provision is two-thirds of the membership present instead of the usual majority. Because by-laws are the fundamental basis of the organization, they should be acceptable to as many members as possible.

By-laws can be amended at any time during the life of the organization. Any proposals for changes in the by-laws require prior notice in writing to the entire membership before acting upon the proposed amendments at any meeting.

ELECTION OF OFFICERS

With the adoption of the by-laws providing for the type of officers for the organization, and the length of their terms, the organization proceeds to elect such officers. The usual officers for most groups are a president, vice-president, recording secretary, corresponding secretary, treasurer, sergeant at arms, and committees. Some have an executive secretary, a paid job, but an organization would have to be large to warrant a paid official.

All members are eligible for office when an organization is first formed. But later the by-laws may require a certain minimum period of membership as a qualification to hold office. Nominations are made by the simple statement: "I nominate so-and-so." The nominations do not require a second and a majority vote is necessary for election.

DUTIES OF OFFICERS

President: The president, as in government, is top man in an organization. Some organizations call this official "chairman." President sounds better, and is more appropriate when he performs not only the functions of presiding at meetings, but other duties in directing the organization. Chairman is the proper designation for one elected only to preside at a meeting.

Their duties as presiding officers are identical, regardless of title; they call the meeting to order, then present the order of business which the meeting is to act upon. They recognize members who desire the floor for a proposal or a discussion. They are supposed to see that everyone who wishes to speak has the opportunity, and to do as little talking themselves as possible. The presiding officer has the right to take part in a discussion. When he does, the vice-chairman should take the chair until the presiding officer has concluded his talk.

A chairman is really a moderator who directs, controls and regulates proceedings. He is neither a boss nor an antagonist and is not to be regarded as such by the members. It is the chairman's primary job to keep the meetings moving smoothly. He should prevent members from abusing their privileges without interference, but should not curb their rights. The chair must entertain all motions that are seconded and must restate them for the members. He must call for a vote on motions and declare the motion adopted or defeated on the basis of the vote. He should allow for a re-count or a roll call whenever requested to do so. When referring to himself, the presiding officer usually says: "The chair recognizes Mr. Blank" instead of "I recognize Mr. Blank."

The president or permanent chairman is usually an ex-officio member of all committees. Although he is not obligated to attend all meetings, he may if he so desires.

Secretary: The duties of a secretary are to keep the records of the organization, to record the minutes of the meetings, to handle the correspondence (unless the organization is large enough to require a corresponding secretary), such as notifying members of regular meetings or of a special meeting, reading the minutes at the meeting, etc.

The minutes of a secretary should indicate when the meeting was held, where it took place, who presided, what business was transacted, when the meeting adjourned, etc.

Treasurer: The treasurer's duties are to handle the funds of the organization, to collect the dues, to pay the bills when

authorized, to keep the books for the organization with records of income and expenditures, and to render reports on finances at the regular meetings.

Sergeant-at-Arms: The duties of the sergeant-at-arms are to assist the chairman in preserving order among the people present at a meeting, members and visitors, to act as a sort of usher by checking people at the door to see that only those entitled to be present at the meeting are admitted, and to escort anyone out if requested to do so by the chairman.

COMMITTEES

The purpose of committees is to expedite the transaction of business on matters that require more time than the meeting permits, or on matters that require time for investigation and special study. Committees are essential in a large organization, but are really not necessary for a small group that can handle its limited business at the regular membership meetings.

The types of committee may vary according to the needs of an organization. A "standing" committee has a fixed term of office and gives continuous service. A "special" committee serves temporarily to investigate and report on some special project or condition.

The top committee in most organizations is the executive committee, sometimes made up of the chairmen of the various committees, sometimes selected from the general membership. Other committees are: membership committees, athletic committees, education committees, social or house committees, committees on finance, temporary committees to deal with a temporary specific problem, etc.

Committees may be appointed by the presiding officer, or be elected by the group, depending upon the by-laws. We think it best for committees to be elected by the membership. The chairman of the committee is either designated by the presiding officer, elected by the committee, or is the person obtaining the most votes in the election. Committees should consist of an odd number of members to assure a majority vote and a minimum of stalemates. As far as possible, the by-laws governing

the conduct of a meeting or organization govern the committees as well.

Most committees are usually made up of small groups and, therefore, their meetings are less formal than regular organization meetings. Motions do not require seconding, speeches are not as restricted and limited, and the chairman attending the committee, or the president of the organization, if attending the committee meeting, participates in the discussions on a par with the other members.

Providing for numerous officers is a good thing because it distributes responsibility among more members. This is important to keep in mind in connection with committees; while good people should be placed on many committees, it is best and advisable to have as many members on committees as possible.

The committee chairman reports for the committee to the general membership meeting. Reports of the committee may consist only of information requiring no action or may contain recommendations for certain action which is often the equivalent of a proposed motion.

When there is a difference of opinion among committee members, the majority report offered is considered the committee report. The dissenting members have the right, however, to submit a minority report proposing a different course of action. Both reports must be heard or read at the same meeting. No action on the majority report is in order until the minority report is disposed of. It can be disposed of in either of two ways. (a) Any member may object to consideration of the minority report and such objection must be voted on immediately without debate. If carried, the minority report is dropped. (b) If the objection to consideration is not upheld, then a motion to substitute the minority report for the majority report is in order. If this motion is carried, the majority report is eliminated and the minority report becomes the committee report and is the only report before the body. If the motion to substitute is not carried, then the meeting proceeds to deal with the majority report.

It is well to bear in mind that any report or motion belongs to the membership.

If they are not satisfied with either report, they can dissolve the committee and act directly from the floor or appoint a new committee.

The chairman of the committee calls the meetings of the committee. If he fails or refuses to do so, or if he is absent, any two members of the committee may call a meeting. The chairman of a committee usually acts as its secretary.

If a committee fails to render a report on a matter referred to it within a reasonable time, the membership may force it to do so by drawing up a petition bearing the number of signatures required in the by-laws. This is called **discharging a committee**.

ORDER OF BUSINESS

The chairman calls the meeting to order. He must determine whether a quorum is present. The number of members required to constitute a quorum is stipulated in the by-laws, usually one more than half of the membership, or as low as one-tenth of the membership. Without a quorum, business cannot be legally conducted. The secretary reads the minutes of the previous meeting and they are adopted, perhaps with corrections, or as read. Officers and committees make any reports they have. Old business left over from the previous meeting is transacted. New business is brought up, discussed and acted upon. At the close, the chairman says that he will entertain a motion for adjournment.

RULES OF DEBATE

The presiding officers should first recognize the mover of a proposal, or the member of a committee presenting a report, and should try to alternate recognition between those favoring and those opposing a proposition. Any member is entitled to speak on the main question and on each amendment as presented. He must confine himself to the question under consideration, must avoid personalities, and must not accuse others of ill motives. In some groups the by-laws limit each speaker to a fixed number of minutes. The meeting may vote to extend the time of a speaker if it so desires. Debate can only be halted by a motion for the previous question and a two-thirds vote is required.

VOTING RULES

There are several methods of taking a vote. The simplest is by voice—"ayes" and "noes." This may be challenged by any member who thinks that the chairman did not hear correctly, in which case the vote is taken by a show of hands, or by standing. Roll call votes, recorded by the secretary, are required in some instances. The closed ballot (written votes) also is commonly used, especially in the election of officers. Only attending members may vote, unless the by-laws specifically permit proxy voting. A tie vote defeats a motion. The chairman is allowed to break a tie, though, if he has not previously voted. Some organizations permit a chairman to vote only in case of a tie, while others allow him to vote as a regular member.

A majority vote is generally required to pass ordinary motions or to adopt ordinary actions. There are certain motions which require a two-thirds vote of those present. These generally include the following: amendments to the by-laws, to take up a question out of its proper order, to suspend the rules, to support an objection to the consideration of a question, to take up the previous question, to limit debate, to expel a member or officer, to discharge a committee, or to refer back to a committee. No vote can be made unanimous if even one member present objects.

WHAT HAPPENS TO A MOTION

A motion is a proposal for action by an organization. It is made by any member who asks the chair for the floor and is properly recognized. Most motions require a second before being placed before the group. Not more than one main motion may be considered at a time. The procedure is simple. One merely says, "I move the following." The chairman then asks if anyone seconds the motion. If it is properly seconded, the chairman announces that a motion has been made and seconded, calls for a discussion and repeats the motion on request. A motion may be voted on without discussion, but discussion is required if requested by any member.

A motion causes many things to happen. It provokes debate, suggests modifications,

clarifies the thinking and expresses the will of the group on a question. Once a motion is presented to the membership, it belongs to them to treat and dispose of in any of several ways and can only be withdrawn with the consent of the membership.

A motion may be amended. This means that the motion may be modified or qualified by adding, substituting, or eliminating words or whole paragraphs. These changes must be relevant to the main motion.

For example, a motion is made for the organization to publish a magazine and stipulates (a) the publication to be a monthly, (b) to have two editors, (c) to cost the members \$1.00 a year, etc. This motion may be amended as follows: (a) to substitute "weekly" for "monthly," (b) to provide salaries for the two editors, (c) to eliminate the dollar charge for the magazine. All these amendments are in order because while the original motion has been amplified or qualified by the amendments, the proposal for publishing a magazine still prevails.

Amendments that are irrelevant are not permissible, such as an amendment requiring the editors to watch television. This is improper (perhaps for other reasons) because it is extraneous to the main question of proposing the publication of a magazine.

Amendments that negate the purpose of the motion, such as a proposal that the organization should not publish a magazine, are out of order because if the membership is entirely opposed to the idea, it can vote against the main motion or dismiss it in other parliamentary ways.

Other important rules governing amendments are:

1. There is no limit to the number of amendments that may be offered, but each amendment must be disposed of before a new one may be proposed.

2. After all amendments have been acted on, the meeting votes on the main motion, and all of the adopted amendments are incorporated in the main motion.

3. All amendments require a majority vote for passage.

4. A rejected amendment may not be resubmitted in identical form and no amend-

ment may be offered reversing an amendment previously adopted.

This is not all that can happen to a motion. In addition to amendments to the motion, you are also permitted to make amendments to the amendments. For example, the original motion stipulates that the magazine should have two editors. An amendment provides that the editors be paid salaries. This amendment can be amended to provide what the salary should be.

Now, if you are thinking of whether you can amend the amendment to the amendment, the answer is "No." Although this has really gone far enough, there is something else you are allowed to do, for better or worse, and that is to introduce a substitute for the motion itself or for any of the amendments or for everything that has been proposed on the question. The substitute for an amendment does not modify the amendment, but replaces it and is subject to the same rules that apply to amendments.

When amendments pile up to the point of confusing the membership, resorting to a substitute for the entire proposition may be helpful. The best way to do this, under the circumstances, is for someone to move to have a special committee designated to prepare a substitute motion for the whole.

If the motion is adopted, the committee-elect should withdraw from the meeting to try to reconcile any contradictions contained in the motion or the amendments. It should bring forth a clear substitute that expresses the intentions of most of the proposals.

Let us not lose sight of the fact that the purpose of a motion is not to create an endless chain of acts, but to get something done. In this connection, it is well to bear in mind that the motion and amendments do not necessarily conflict and that the proposer of a motion may accept the amendments without discussion or vote.

Motions that cannot be amended: These include such motions as questions of order or appeal, objections to consideration of the question, or motions to adjourn, to call for the order of the day, to vote, to withdraw a motion, to take up a question out

of proper order, to suspend the rules, to table, to take from the table, to reconsider, to consider the previous question, to postpone indefinitely, to amend an amendment, or to nominate. Motions to postpone indefinitely, to limit debate, or to recess can be amended as to time only.

DELAYING OR CANCELING CONSIDERATION OF A MOTION

It is not binding on a meeting to deal with a motion at the time it is proposed. On the contrary, the membership has the choice of postponing or renewing consideration of a motion. Here are some of the ways to attain such objectives.

Objection to consideration: Consideration of any issue may be stopped before discussion begins on the question, even though it involves interrupting the speaker, by objecting to its consideration. This objection may be made by any member and does not require a second. Objection to consideration calls for an immediate vote without debate or amendment and requires a two-thirds vote. If carried, the motion is dropped for all time. The purpose of the act is to prevent the meeting from dealing with a question that may be offensive. This reason should be primary. Other reasons may be that it might waste the time of the meeting or it may be inappropriate to deal with the question at the time. This action is very drastic and should not be employed to gag any member except the village idiot at his worst.

Motion to postpone indefinitely: This is a polite way of killing a motion, at least for the moment. It differs from "Objection to consideration" insofar as the motion to postpone indefinitely and the motion itself are debatable and cannot be made while a member has the floor. This motion requires a second and calls for a majority vote. It cannot be amended and cannot be brought up again.

Motion to "lay on the table": If the meeting does not want to consider the motion at all, the procedure is to make a motion to "lay the question on the table." This suspends consideration of the main motion and amendments until such time

as the group chooses to take it up again, which can be later at the same meeting after other business has been transacted or at any subsequent meeting. This motion must be seconded, requires a majority vote, may not be debated or amended or postponed. The only way to bring the motion back is to move to "take it off the table."

Motion to postpone to a definite date: This is an expression of the will of the meeting to put off consideration of the proposal until later in the same session or until a subsequent meeting. The object of such an act is to delay consideration of the question until more members are present, or to enable members to acquire further information before making their decisions. This motion is debatable only as to the advisability of postponement. The subject matter of the motion is not debatable. It is open for amendment as to time only and requires a majority vote.

Motion to refer to a committee: This is usually done if a meeting feels that a question requires more time and information before it acts upon it. A motion to refer to a committee names an existing committee or creates a special committee for its consideration and may be accompanied by instructions. Seconding and a majority vote are required for passage of this motion. It can be debated only as to the desirability and advisability of referring it to the committee. It can be amended only as to the nature of the committee and as to the instructions.

HOW TO REOPEN A QUESTION

To avoid finality of decisions that may be harmful to the best interests of the members, certain actions previously taken by the members are subject to review by them. Such review may apply to matters acted upon, matters postponed, or matters delegated to committees.

Motion to reconsider: This deals with something acted upon by a meeting which the members would like to reconsider at another time during the same meeting. It is a motion that should be made by one who has voted with the majority, whether in the affirmative or the negative, and is

made because the voter has changed his mind on the matter in the light of new information. Very often a member deliberately votes for or against motions so that he can move for reconsideration of the subject later in the meeting when there may be a better chance for passing or defeating the motion because more members are present, or because he will have an opportunity to persuade other members to change their votes. This is both good parliamentary procedure and democratic.

A motion to reconsider requires a second, a majority vote, is debatable and cannot be renewed. If a motion to reconsider is carried, the question is before the assembly with its original parliamentary status. Motions that cannot be reconsidered include: motions to take from the table, to lay on the table, or a motion for indefinite postponement that has been defeated.

To take from the table: This motion allows a group to take up a subject that was set aside by a motion to table it at a previous meeting. This resumption of consideration on a question rates priority over any new motions and can be introduced when there is no other business before the body. Motion to take a question from the table requires a second and a majority vote, is not debatable and cannot be amended.

A motion to rescind: This motion enables the membership to re-evaluate some action taken in the past because it may have been adopted without full understanding of the consequences at that time. The point of rescinding a previous act of an organization does not apply to any legally binding act committing the organization, nor to the election of members or officers. This motion calls for a second and majority vote unless the original motion involved required a two-thirds vote. It is debatable and cannot be amended.

Several important techniques for keeping informed about proceedings, preventing violations and protecting the rights of members, correcting errors, and expediting the business at hand, are:

Moving the Previous Question: This asks that the discussion be stopped at once on any motion before the body. A move for the previous question cannot interrupt the speaker. It requires a second, is not de-

batable, cannot be amended, and requires a two-thirds vote. Its purpose is to say "Let's stop talking and vote."

Point of Information: This is a method of obtaining information about what is occurring through the medium of the chairman or the speaker. This interruption request is permissible even when one is speaking. It is unusual for the speaker or the chair to ignore such a request. Since it is intended only to secure information, it is not proper to use this as a device to make a statement or delay proceedings.

Point of Order: This questions the correctness of any action at the time it occurs. The only time that a point of order can be employed *after* an action has taken place is if it involves a violation of by-laws, constitution, or the law. It is raised on the basis of a mistake or omission in procedure, of a violation of the rules of the organization, of decorum in debate, or of irrelevancy of debate and procedure. A point of order needs no seconding, cannot be amended and requires no vote.

A point of order may be raised by any member at any time. It is in the nature of a demand addressed to the chair, which is required to act immediately on the point of order raised. The procedure is as follows: A member announces, "I rise to a point of order." This automatically halts any discussion or action until the chairman rules on the point of order. If the chairman concurs, he announces that the point of order was well taken, and proceeds to correct whatever is in question.

Appeal: If any other member takes exception to this ruling, he may appeal from the decision of the chair. Another basis for an appeal may result when the chair declares the point of order not well taken. This appeal is usually made by the person raising the point of order. All appeals require a second, are debatable and are subject to a majority vote of the membership. If they vote for the appeal, the chairman's decision is reversed. If they vote against the appeal, the chairman's decision is upheld. In the event of a tie vote, the chairman is sustained. If the chairman is a member of the organization, he has the right to vote and may make the tie.

Discussions on some appeals are not customary, such as questions of indecorum, violation of rules of speaking, or order of business.

Sometimes the chairman is in doubt on a point of order. When he is, he may defer to someone present for advice, or ask the members to discuss and vote on the point of order. This is the only time that a point of order is debatable. Their vote determines the chairman's decision.

Motion to adjourn: This motion is in order at any time, but should be employed with discretion. Obviously, it should not interfere with the organization's efforts to get business done. This motion requires a second, is not debatable, cannot be amended, and must be voted on immediately. A majority vote is necessary. Any motion for adjournment that refers to a specific time or place for the next meeting is subject to debate and amendment.

We have tried to project the reader into actual participation in the forming of an organization and the conduct of a meeting, and we have given more attention to the processes than to the discussion of technical rules. In following this course, we may have omitted some matters that do not occur at every meeting, but that do happen occasionally and should be understood.

Removal of officers: This is sometimes an unhappy necessity. Misconduct of an officer may involve neglect of duties, abuse of privileges, or incompetence. The removal of an officer is accomplished by preferring charges which should be of a serious nature and supported by proof. The charges may be considered at a general meeting or referred to a committee to investigate and to recommend a course of action. A two-thirds vote of the members present is required to remove an officer. A motion to remove an officer is debatable.

Expulsion of members: If a member violates his obligations and duties or is involved in an act that may bring disrepute to the organization, he is subject to charges and a hearing before a committee or the membership and can be expelled by a two-thirds vote. This action is debatable. Obviously, such actions should not be undertaken unless the charges are serious and

supported by substantial proof. It would be deplorable if the exercise of such a drastic action were based on a frivolous issue or personal bias. Sometimes the behavior of a member at a meeting requires disciplinary action in the form of a motion for immediate expulsion. This is not debatable and requires a two-thirds vote.

Question of privilege: A member may interrupt a meeting at any time to raise a question involving the comfort or convenience of the membership. It may concern such matters as the physical condition of the meeting hall, the seating of the members, the conduct of persons present, or the ability to hear speakers. This request requires no second, is not debatable, cannot be amended and is decided by the chair.

Suspension of the rules: The object of a proposal to suspend the rules is to permit a meeting to do something that is ordinarily prohibited by the rules of parliamentary procedure or by the adopted order of business. The suspension of rules is generally employed to deal with an emergency or special condition, such as permitting a guest speaker to start earlier than scheduled or allowing for the interruption of the regular order of business by a visiting committee. There are other circumstances under which the suspension of rules is permitted, but these cases are too complicated to be treated here. This motion cannot interrupt a speaker, requires a second, cannot be debated or amended, and requires a two-thirds vote.

We have endeavored to outline some of the basic rules for the benefit of the many people who want some simple knowledge of how to form an organization, how to conduct a meeting, or how to participate in one; also to help spectators at a convention understand what is going on. Beyond this, we refer you to the authorities on parliamentary procedure.

However important rules are for guidance in most human activities, there is no doubt that much is accomplished through informal discussion and action, and we do not hesitate to urge small friendly groups to do their business with as little formality and as few restrictions as possible. If this does not always work, we hope our book is there to serve you.

CROSSWORD PUZZLE GUIDE



Since most persons who can read and write occasionally or frequently indulge in the indoor pastime of working crossword puzzles, this section is offered as a handy help to solvers who may be stumped for a two-letter word meaning "three-toed sloth" or a three-letter word meaning "native of Mindanao."

We have those two words here, and plenty more. We have the Greek, Roman, Norse and Egyptian deities of myth and legend. And we have those "Greek letters" and "months of the Jewish year" so often needed to fill out little gaps.

The reader is warned that in mythology there are many confusing and even conflicting accounts of the identities and adventures of the various gods, goddesses and lesser figures. There is also considerable variation in the spelling of names, places and things. For instance, you may spell it ICON, IKON or EIKON, and similar options are plentiful all along the crossword line. If the reader will keep further possible variations in mind, it may help at a critical point.

Various other sections of our book will be found of use to the crossword puzzler—especially the section of world geography and statistics. See Geography in the index.

First Aid to Crossword Puzzlers

(We cannot, of course, begin to list all the odd words you will meet with in your daily and Sunday crossword puzzles, for such words run into many thousands. But we have tried to include those which turn up most frequently, as well as many others which should be of help to you when you are unable to go any further.

Also, we do not guarantee that the definitions in your puzzle will be exactly the same as ours, although we have checked every word with a standard dictionary and have followed its definition.

In nearly every case, we have used as the key word the principal noun of the definition, rather than any adjective, adjective phrase, or noun used as an adjective. And, to simplify your searching, we have grouped the words according to the number of spaces you have to fill.)

Words of Two Letters

Ambary, DA
And (French, Latin), ET
Article (Arabic), AL
(French), LA, LE, UN
(Spanish), EL, LA, UN
At the (French), AU
(Spanish), AL
Behold, LO
Bird: Hawaiian, OO
Birthplace: Abraham's, UR
Bone, OS
Buddha, FO
Butterfly: Peacock, IO
Champagne, AY
Chaos, NU
Chief: Burmese, BO
Coin: Roman, AS
Siamese, AT
Concerning, RE
Dialect: Chinese, WU
Double (Egy. relig.), KA
Drama: Japanese, NO
Egg (comb. form), OO
Esker, OS
Eye (Scotch), EE
Factor: Amplification, MU
Fifty (Greek), NU
Fish: Carplike, ID
Force, OD
Forty (Greek), MU
From (French, Latin, Spanish), DE
(Latin prefix), AB

From the (French), DU
God: Babylonian, EA, ZU
Egyptian sun, RA
Hindu unknown, KA
Semitic, EL
Goddess: Babylonian, AI
Greek earth, GE
Gold (heraldry), OR
Gulf: Arctic, OB
Heart (Egy. relig.) AB
Indian: South American, GE
King: Of Bashan, OG
Language: Artificial, RO
Assamese, AO
Lava: Hawaiian, AA
Letter: Greek, MU, NU, PI, XI
Hebrew, HE, PE
Lily: Palm, TI
Measure: Annamese, LY
Chinese, HO, HU, KO, LI, MU, PU, TO, TU
Japanese, GO, JO, MO, RI, SE, TO
Metric land, AR
Netherlands, EL
Portuguese, PE
Siamese, WA
Swedish, AM
Type, EM, EN
Monk: Buddhist, BO

Month: Jewish, AB
Mouth, OS
Mulberry: Indian, AL
Native: Burmese, WA
Note: Of Scale, DO, FA, MI, LA, RE, TI
Of (French, Latin, Spanish), DE
Of the (French), DU
One (Scotch), AE
Pagoda: Chinese, TA
Plant: East Indian fiber, DA
Ridge: Sandy, AS, OS
River: Russian, OB
Sloth: Three-toed, AI
Soul (Egy. relig.), BA
Sound: Hindu mystic, OM
Suffix: Comparative, ER
The. See Article
To the: French, AU
Spanish, AL
Tree: Buddhist sacred, BO
Tribe: Assamese, AO
Type: Jumbled, PI
Weight: Annamese, TA
Chinese, LI
Danish, ES
Japanese, MO
Roman, AS
Whirlwind: Faeroe Is., OE
Yes (German), JA
(Italian, Spanish), SI
(Russian), DA

Words of Three Letters

Adherent, IST
 Again, BIS
 Age, ERA
 Antelope: African, GNU, KOB
 Apricot: Japanese, UME
 Article (German), DAS, DEM, DEN, DER, DES, DIE, EIN
 (French), LES, UNE
 (Spanish), LAS, LOS, UNA
 Banana: Polynesian, FEI
 Barge, HOY
 Bass: African, IYO
 Beak, NEB, NIB
 Beard: Grain, AWN
 Beetle: June, DOR
 Being, ENS
 Berry: Hawthorn, HAW
 Beverage: Hawaiian, AVA
 Bird: Australian, EMU
 Crowlike, JAY
 Extinct, MOA
 Fabulous, ROC
 Frigate, IWA
 Parson, POE, TUE, TUI
 Sea, AUK
 Blackbird, ANI, ANO
 Born, NEE
 Bronze: Roman, AES
 Bugle: Yellow, IVA
 By way of, VIA
 Canton: Swiss, URI
 Cap: Turkish, FEZ
 Catnip, NEP
 Character: In "Faerie Queen," UNA
 Coin: Afghan, PUL
 Albanian, LEK
 British Guiana, BIT
 Bulgarian, LEV, LEW
 French, ECU, SOU
 Indian, PIE
 Japanese, SEN, YEN
 Korean, WON
 Lithuanian, LIT
 Macao, Timor, AVO
 Palestinian, MIL
 Persian, PUL
 Peruvian, SOL
 Rumanian, BAN, LEU, LEY
 Scandinavian, ORE
 Siamese, ATT
See also Money of account
 Collection: Facts, ANA
 Commune: Belgian, ANS, ATH
 Netherlands, EDE, EPE
 Community: Russian, MIE
 Constellation: Southern, ARA
 Contraction: Poetic, EEN, EER, OER
 Covering: Apex of roof, EPI

Crab: Fiddler, UCA
 Crag: Rocky, TOR
 Cry: Crow, rook, raven, CAW
 Cup: Wine, AMA
 Cymbal: Oriental, TAL, ZEL
 Disease: Silkworm, UJI
 Division: Danish territorial, AMT
 Geologic, EON
 Doctrine, ISM
 Dowry, DOT
 Dry (French), SEC
 Dynasty: Chinese, CHI, HAN, SUI, WEI, YIN
 Eagle: Sea, ERN
 Earth (comb. form), GEO
 Egg: Louse, NIT
 Eggs: Fish, ROE
 Emmet, ANT
 Enzyme, ASE
 Equal (comb. form), ISO
 Extension: building, ELL
 Far (comb. form), TEL
 Farewell, AVE
 Fiber: Palm, TAL
 Finial, EPI
 Fish: Carplike, IDE
 Pikelike, GAR
 Flatfish, DAB
 Fleur-de-lis, LIS, LYS
 Food: Hawaiian, POI
 Formerly, NEE
 Friend (French), AMI
 Game: Card, LOO
 Garment: Camel-hair, ABA
 Gateway, DAR
 Gazelle: Tibetan, GOA
 Genus: Ducks, AIX
 Grasses, POA
 Grasses (maize), ZEA
 Herbs or shrubs, IVA
 Lizards, UTA
 Rodents (incl. house mice), MUS
 Ruminants (incl. cattle), BOS
 Swine, SUS
 Gibbon: Malay, LAR
 God: Assyrian, SIN
 Babylonian, ABU, ANU, BEL, HEA, SIN, UTU
 Irish sea, LER
 Phrygian, MEN
 Polynesian, ORO
 Goddess: Babylonian, AYA
 Etruscan, UNI
 Hindu, SRI, UMA, VAC
 Teutonic, RAN
 Governor: Algerian, DEY
 Turkish, BEY
 Grampus, ORC
 Grape, UVA
 Grass: Meadow, POA
 Gypsy, ROM
 Hall, AVE
 Hare: Female, DOE

Hawthorn, HAW
 Hay: Spread for drying, TED
 Herb: Japanese, UDO
 Perennial, PIA
 Used for blue dye, WAD
 Herd: Whales, GAM, POD
 Hero: Spanish, CID
 High (music), ALT
 Honey (pharm.), MEL
 Humorist: American, ADE
 I (Latin), EGO
 I love (Latin), AMO
 Indian: Algonquian, FOX, SAC, WEA
 Chimakuan, HOH
 Keresan, SIA
 Mayan, MAM
 Shoshonean, UTE
 Siouan, KAW, OTO
 South American, ITE, ONA, URO, URU, YAO
 Tierra del Fuego, ONA
 Wakashan, AHT
 Ingot, PIG
 Inlet: Narrow, RIA
 Island: Cyclades, IOS
 Dodecanese, COS, KOS (French), ILE
 River, AIT
 Jackdaw, DAW
 John (Gaelic), IAN
 Keelbill, ANI, ANO
 Kiln, OST
 King: British legendary, LUD
 Kobold, NIS
 Lace: To make, TAT
 Lamprey, EEL
 Language: Artificial, IDO
 Bantu, ILA
 Siamese, LAO, TAI
 Leaf: Palm, OLA, OLE
 Leaving, ORT
 Left: Cause to turn, HAW
 Letter: Greek, CHI, ETA, PHI, PSI, RHO, TAU
 Hebrew, MEM, NUN, SIN, TAV, VAU
 Lettuce, COS
 Life (comb. form), BIO
 Lily: Palm, TOI
 Lizard, EFT
 Louse: Young, NIT
 Love (Anglo-Irish), GRA
 Lute: Oriental, TAR
 Macaw: Brazilian, ARA
 Marble, TAW
 Match: Shooting (French), TIR
 Meadow, LEA
 Measure: Abyssinian, TAT
 Algerian, PIK
 Annamese, GON, MAU, NGU, QUO, SAO, TAO, TAT
 Arabian, DEN, SAA

- Belgian, VAT
 Bulgarian, OKA, OKE
 Chinese, FEN, TOU, YIN
 Cloth, ELL
 Cyprus, OKA, OKE, PIK
 Czech, LAN, SAH
 Danish, FOD, MIL, POT
 Dominican Republic, ONA
 Dutch, old, AAM
 East Indian, KIT
 Egyptian, APT, HEN, PIK,
 ROB
 Electric, MOH, OHM
 Energy, ERG
 English, PIN
 Estonian, TUN
 French, POT
 German, AAM
 Greek, PIK
 Hebrew, CAB, HIN, KOR,
 LOG
 Hungarian, AKO
 Icelandic, FET
 Indian, GAZ, GUZ, JOW,
 KOS
 Japanese, BOO, CHO,
 KEN, RIN, SHO, SUN,
 TAN
 Malabar, ADY
 Metric land, ARE
 Netherlands, KAN, KOP,
 MUD, VAT, ZAK
 Norwegian, FOT, POT
 Persian, GAZ, GUZ, MOU,
 ZAR, ZER
 Polish, CAL
 Rangoon, DHA, LAN
 Roman, PES, URN
 Russian, FUT, LOF
 Scotch, COP
 Siamese, KEN, NIU, RAI,
 SAT, SEN, SOK, WAH,
 YOT
 Smallland, TOP
 Spanish, PIE
 Straits Settlements, PAU,
 TUN
 Swedish, ALN, FOT, MIL,
 REF, TUM
 Swiss, POT
 Tunisian, SAA
 Turkish, OKA, OKE, PIK
 Wire, MIL
 Württemberg, IMI
 Yarn, LEA
 Yugoslavian, OKA, RIF
 Milk, LAC
 Milkfish, AWA
 Moccasin, PAC
 Money: Yap stone, FEI
 Money of Account: Anglo-
 Saxon, ORA, ORE
 French, SOU
 Indian, LAC
 Japanese, RIN
 Oman, GAJ
 Virgin Islands, BIT
 See also Coin
- Monkey: Capuchin, SAI
 Morsel, ORT
 Mother: Peer Gynt's, ASE
 Mountain: Asia Minor, IDA
 Mulberry: Indian, AAL,
 ACH, AWL
 Muttonbird: New Zealand,
 OII
 Nahoor, SNA
 Native: Mindanao, ATA
 Neckpiece, BOA
 Newt, EFT
 No (Scotch), NAE
 Note: Guido's highest, ELA
 Of scale, SOL
 Nursemaid: Oriental, AMA,
 IYA
 Ocher: Yellow, SIL
 One (Scotch), YIN
 Ornament: Pagoda, TEE
 Oven: Polynesian, UMU
 Ox: Tibetan, YAK
 Pagoda: Chinese, TAA
 Parrot: Hawk, HIA
 New Zealand, KEA
 Part: Footlike, PES
 Particle: Electrified, ION
 Pasha, DEY
 Pass: Mountain, COL
 Paste: Rice, AME
 Pea: Indian split, DAL
 Peasant: Philippine, TAO
 Penpoint, NEB, NIB
 Piece out, EKE
 Pigeon, NUN
 Pine: Textile screw, ARA
 Pistol (slang), GAT
 Pit: Baking, IMU
 Plant: Pepper, AVA
 Play: By Capek, RUR
 Poem: Old French, DIT
 Porgy: Japanese, TAI
 Priest: Biblical high, ELI
 Prince: Ethiopian, RAS
 Pseudonym: Dickens', BOZ
 Queen: Fairy, MAB
 Quince: Bengal, BEL
 Record: Ship's, LOG
 Refuse: Flax (Scotch), PAB,
 POB
 Resin, LAC
 Resort, SPA
 Revolver (slang), GAT
 Right: Cause to turn, GEE
 River: Scotch or English,
 DEE (Spanish), RIO
 Swiss, AAR
 Room: Harem, ODA
 Rootstock: Fern, ROI
 Rose (Persian), GUL
 Ruff: Female, REE
 Rule: Indian, RAJ
 Sailor, GOB, TAR
 Saint: Female (abbr.), STE
 Mohammedan, PIR
 Salt, SAL
 Sash: Japanese, OBI
 Scrap, ORT
- Seed: Poppy, MAW
 Small, PIP
 Self, EGO
 Serpent: Vedic sky, AHI
 Sesame, TIL
 Sheep: Female, EWE
 Indian, SHA
 Male, RAM
 Sheepfold (Scotch), REE
 Shelter, LEE
 Shield, ECU
 Shooting match (French),
 TIR
 Shrew: European, ERD
 Shrub: Evergreen, YEW
 Silkworm, ERI
 Snake, ASP, BOA
 Soak, RET
 Son-in-law: Mohammed's,
 ALI
 Sorrel: Wood, OCA
 Spade: Long, narrow, LOY
 Spirit: Malignant, KER
 Spot: Playing-card, PIP
 Spread for drying, TED
 Spring: Mineral, SPA
 Sprite: Water, NIX
 Statesman: Japanese, ITO
 Stern: Toward, AFT
 Stomach: Bird's, MAW
 Street (French), RUE
 Summer (French), ETE
 Sun, SOL
 Swamp, BOG, FEN
 Swan: Male, COB
 Tea: Chinese, CHA
 Temple: Shinto, SHA
 The. See Article
 Thing (law), RES
 Title: Etruscan, LAR
 Monk's, FRA
 Portuguese, DOM
 Spanish, DON
 Turkish, AGA, BEY
 Tool: Cutting, ADZ, AXE
 Mining, GAD
 Piercing, AWL
 Tree: Candelnut, AMA
 Central American, EBO
 East Indian, SAJ, SAL
 Evergreen, YEW
 Hawaiian, KOA, KOU
 Indian, BEL, DAR
 Linden, LIN
 New Zealand, AKE
 Philippine, DAO, TUA,
 TUI
 Rubber, ULE
 South American, APA
 Tribe: New Zealand, ATI
 Turmeric, REA
 Twice, BIS
 Twin: Siamese, ENG
 Uncle (dialect), EAM, EME
 Vell: Chalice, AER, AIR
 Vessel: Wine, AMA
 Vestment: Ecclesiastical,
 ALB

Vetch: Bitter, ERS
 Victorfish, AKU
 Vine: New Zealand, AKA
 Philippine, IYO
 Wallaba, APA
 Wapiti, ELK
 Water (French), EAU
 Waterfall, LIN
 Watering place: Prussian,
 EMS
 Weave: Designating plain,
 UNI
 Weight: Annamese, CAN
 Bulgarian, OKA, OKE
 Burmese, MOO, VIS
 Chinese, FEN, HAO, KIN,
 SSU, TAN, YIN

Cyprus, OKA, OKE
 Danish, LOD, ORT, VOG
 East Indian, TJI
 Egyptian, KAT, OKA, OKE
 English, for wool, TOD
 German, LOT
 Greek, MNA, OKA, OKE
 Indian, SER
 Japanese, FUN, KIN, RIN,
 SHI
 Korean, KON
 Malacca, KIP
 Mongolian, LAN
 Netherlands, ONS
 Norwegian, LOD
 Polish, LUT
 Rangoon, PAI
 Roman, BES

Russian, LOT
 Siamese, BAT, HAP, PAI
 Swedish, ASS, ORT
 Turkish, OKA, OKE
 Yugoslavian, OKA, OKE
 Whales: Herd, GAM, POD
 Wildebeest, GNU
 Wing, ALA
 Witticism, MOT
 Wolframite, CAL
 Worm: African, LOA
 Wreath: Hawaiian, LEI
 Yale, ELI
 Yam: Hawaiian, HOI
 Yes (French), OUI
 Young: Bring forth, EAN
 Z (letter), ZED

Words of Four Letters

Aborigine: Borneo, DYAK
 Agave, ALOE
 Animal: Footless, APOD
 Ant: White, ANAI, ANAY
 Antelope: African, ASSE,
 BISA, GUIB, KOBA,
 KUDU, ORYX, POKU,
 PUKU, TOPI, TORA
 Apoplexy: Plant, ESCA
 Apple, POME
 Apricot, ANSU
 Ardor, ELAN
 Armadillo, APAR, PEBA,
 PEVA, TATU
 Ascetic: Mohammedan,
 SUFI
 Association: Chinese, TONG
 Astronomer: Persian, OMAR
 Avatar: Of Vishnu, RAMA
 Axillary, ALAR
 Band: Horizontal (heral-
 dry), FESS
 Barracuda, SPET
 Bark: Mulberry, TAPA
 Base: Column, DADO
 Bearing (heraldry), ORLE
 Beer: Russian, KVAS
 Beige, ECRU
 Being, ESSE
 Beverage: Japanese rice,
 SAKE
 Bird: Asian, MINA, MYNA
 Egyptian sacred, IBIS
 Extinct, DODO, MAMO
 Flightless, KIWI
 Gull-like, TERN
 Hawaiian, IWI, MAMO
 Parson, KOKO
 Unfedged, EYAS
 Birds: As class, AVES
 Black, EBON
 (French), NOIR
 Blackbird: European, MERL
 Boat: Flat-bottomed, DORY
 Bone: Forearm, ULNA
 Bones, OSSA
 Box: Japanese, INRO
 Bravo (rare), EUGE

Buffalo: Indian wild, ARNA
 Bull (Spanish), TORO
 Burden, ONUS
 Cabbage: Sliced, SLAW
 Caliph: Mohammedan,
 OMAR
 Canoe: Malay, PRAU, PROA
 Cap: Military, KEPI
 Cape, NESS
 Capital: Ancient Irish,
 TARA
 Case: Article, ETUI
 Cat: Wild, BALU, EYRA
 Chalcedony, SARD
 Chamber: Indian' ceremo-
 nial, KIVA
 Channel: Brain, ITER
 Cheese: Dutch, EDAM
 Chest: Sepulchral stone,
 CIST
 Chieftain: Arab, EMIR
 Church: Part of, APSE,
 NAVE
 (Scotch), KIRK
 Claim (law), LIEN
 Cluster: Flower, CYME
 Coin: Chinese, TAEI, YUAN
 German, MARK
 Indian, ANNA
 Iranian, RIAL
 Italian, LIRA
 Moroccan, OKIA
 Siamese, BAHT
 South American, PESO
 Spanish, DURO, PESO
 Turkish, PARA
 Commune: Belgian, AATH
 Composition: Musical,
 OPUS
 Compound: Chemical, DIOL
 Constellation: Southern,
 PAVO
 Council: Russian, DUMA
 Counsel, REDE
 Covering: Seed, ARIL
 Cross: Egyptian, ANKH
 Cry: Bacchanalian, EVOE
 Cup (Scotch), TASS

Cupbearer, SAKI
 Dagger, DIRK
 Malay, KRIS
 Dam: River, WEIR
 Dash, ELAN
 Date: Roman, IDES
 Dawn: Pertaining to, EOAN
 Dean: English, INGE
 Decay: In fruit, BLET
 Deer: Sambar, MAHA
 Disease: Skin, ACNE
 Disk: Solar, ATEN
 Dog: Hunting, ALAN
 Drink: Hindu intoxicating,
 SOMA
 Duck, SMEE, SMEW, TEAL
 Dynasty: Chinese, CHEN,
 CHIN, CHOU, CHOW,
 HSIA, MING, SUNG,
 TANG, TSIN
 Mongol, YUAN
 Eagle: Biblical, GIER
 Sea, ERNE
 Egyptian: Christian, COPT
 Ear: Pertaining to, OTIC
 Entrance: Mine, ADIT
 Esau, EDOM
 Escutcheon: Voided, ORLE
 Eskers, OSAR
 Evergreen: New Zealand,
 TAWA
 Fairy: Persian, PERI
 Family: Italian, ESTE
 Far (comb. form), TELE
 Farewell, VALE
 Father (French), PERE
 Fennel: Philippine, ANIS
 Fever: Malarial, AGUE
 Fiber: East Indian, JUTE
 Firn, NEVE
 Fish: Carplike, DACE
 Hawaiian, ULUA
 Herringlike, SHAD
 Mackerellike, CERO
 Marine, HAKE
 Sea, LING, MERO, OPAH
 Spiny-finned, GOBY
 Food: Tropical, TARO

- Foot: Metric, IAMB
Formerly, ERST
Founder: Of Carthage,
DIDO
France: Southern, MIDI
Furze, ULEX
Gaelic, ERSE
Gaiter, SPAT
Game: Card, FARO, SKAT
Garlic: European wild,
MOLY
Garment: Hindu, SARI
Roman, TOGA
Gazelle, CORA
Gem, JADE, ONYX, OPAL,
RUBY
Genus: Amphibians (incl.
frogs), RANA
Amphibians (incl. tree
toads), HYLEA
Antelopes, ORYX
Auks, ALCA, URIA
Bees, APIS
Birds (American os-
triches), RHEA
Birds (cranes), GRUS
Birds (magpies), PICA
Birds (peacocks), PAVO
Cetaceans, INIA
Ducks (incl. mallards),
ANAS
Fishes (burbots), LOTA
Fishes (incl. bowfins),
AMIA
Genus: Geese (snow geese),
CHEN
Gulls, XEMA
Herbs, ARUM, GEUM
Insects (water scorpions),
NEPA
Lilies, ALOE
Mammals (mankind),
HOMO
Orchids, DISA
Owls, ASIO, BUBO, OTUS
Palms, NIPA
Sea birds, SULA
Sheep, OVIS
Shrubs, Eurasian, ULEX
Shrubs (hollies), ILEX
Shrubs (incl. Virginia
Willow), ITEA
Shrubs, tropical, EVEA
Snakes (sand snakes),
ERYX
Swans, OLOR
Trees, chocolate, COLA
Trees (ebony family),
MABA
Trees (incl. maples),
ACER
Trees (Olives), OLEA
Trees, tropical, EVEA
Turtles, EMYS
Goat: Wild, IBEX, KRAS,
TAHR, TAIR, THAR
God: Assyrian, ASUR
Babylonian, ADAD, ADDU,
ENKI, ENZU, IRRA,
NABU, NEBO, UTUG
Celtic, LLEU, LLEW
Hindu, AGNI, CIVA,
DEVA, DEWA, KAMA,
RAMA, SIVA, VAYU
Phrygian, ATYS
Semitic, BAAL
Teutonic, HLER
Goddess: Babylonian, ERUA,
GULA
Hawaiian, PELE
Hindu, DEVI, KALI, SHRI,
VACH
Gooseberry: Hawaiian,
POHA
Gourd, PEPO
Grafted (heraldry), ENTE
Grandfather (obsolete),
AIEL
Grandparents: Pertaining
to, AVAL
Grass: Hawaiian, HILO
Gray (French), GRIS
Green (heraldry), VERT
Groom: Indian, SYCE
Half (prefix), DEMI, HEMI,
SEMI
Hamlet, DORP
Hammer-head: Part of,
PEEN
Handle, ANSA
Harp: Japanese, KOTO
Hartebeest, ASSE, TORA
Hautboy, OBOE
Hawk: Taken from nest
(falconry), EYAS
Hearing (law), OYER
Heater: For liquids, ETNA
Herb: Aromatic, ANET,
DILL
Fabulous, MOLY
Perennial, GEUM, SEGO
Pot, WORT
Used for blue dye, WADE,
WOAD
Hill: Flat-topped, MESA
Sand, DENE, DUNE
Hoarfrost, RIME
Hog: Immature female,
GILT
Holly, ILEX
House: Cow, BYRE
(Spanish), CASA
Ice: Floating, FLOE
Image, ICON, IKON
Incarnation: Of Vishnu,
RAMA
Indian: Algonquian, CREE,
SAUK
Central American, MAYA
Iroquoian, ERIE
Mexican, CORA
Peruvian, CANA, INCA,
MORO
Shoshonean, HOPI
Siouan, OTOE
Southwestern, HOPI,
PIMA, YUMA, ZUNI
Insect: Immature, PUPA
Instrument: Stringed,
LUTE, LYRE
Ireland, EIRE, ERIN
Jacket: English, ETON
Jail (British), GAOL
Jar, OLLA
Judge: Mohammedan, CADI
Juniper: European, CADE
Kiln, OAST, OVEN
King: British legendary,
LUDD, NUDD
Kiss, BUSS
Knife: Philippine, BOLO
Koran: Section of, SURA
Laborer: Spanish American,
PEON
Lake: Mountain, TARN
(Scotch), LOCH
Lamp: Miner's, DAVY
Landing place: Indian,
GHAT
Language: Buddhist, PALI
Japanese, AINU
Latvian, LETT
Layer: Of iris, UVEA
Leaf: Palm, OLAY, OLLA
Legislature: Ukrainian,
RADA
Lemur, LORI
Leopard, PARD
Let it stand, STET
Letter: Greek, BETA, IOTA,
ZETA
Hebrew, AYIN, BETH,
CAPH, KOPH, RESH,
SHIN, TETH, YODH
Papal, BULL
Lily, ALOE
Literature: Hindu sacred,
VEDA
Lizard, GILA
Monitor, URAN
Loquat, BIWA
Magistrate: Genoese or Ve-
netian, DOGE
Man (Latin), HOMO
Mark: Omission, DELE
Marmoset: South American,
MICO
Meadow: Fertile, VEGA
Measure: Electric, VOLT,
WATT
Force, DYNE
Hebrew, OMER
Printing, PICA
Spanish or Portuguese,
VARA
Swiss land, IMMI
Medley, OLIO
Merganser, SMEW
Milk (French), LAIT
Molding, GULA
Curved, OGEE
Mongoose: Crab-eating,
URVA

- Monk: Tibetan, LAMA
 Monkey: African, MONA, WAAG
 Ceylonese, MAHA
 Cochin-China, DOUC
 South American, SAKI, TITI
 Moonshood, ATIS
 Month: Jewish, ADAR, ELUL, IYAR
 Mother (French), MERE
 Mountain: Thessaly, OSSA
 Mouse: Meadow, VOLE
 Mythology: Norse, EDDA
 Nail (French), CLOU
 Native: Philippine, MORO
 Nest: Of pheasants, NIDE
 Network, RETE
 No (German), NEIN
 Noble: Mohammedan, AMIR
 Notice: Death, OBIT
 Novel: By Zola, NANA
 Nursemaid: Oriental
 AMAH, AYAH, EYAH
 Nut: Philippine, PILI
 Oak: Holm, ILEX
 Oil (comb. form), OLEO
 Ostrich: American, RHEA
 Oven, KILN, OAST
 Owl: Barn, LULU
 Ox: Celebes wild, ANOE
 Extinct wild, URUS
 Palm, ATAP, NIPA, SAGO
 Parliament, DIET
 Parrot: New Zealand, KAKA
 Pass: Indian mountain, GHAT
 Passage: Closing (music), CODA
 Peach: Clingstone, PAVY
 Peasant: Indian, RYOT
 Old English, CARL
 Pepper: Australasian, KAVA
 Perfume, ATAR
 Persia, IRAN
 Person: Extraordinary, ONER
 Pickerel or pike, ESOX
 Pitcher, EWER
 Plant: Aromatic, NARD
 Century, ALOE
 Indigo, ANIL
 Pepper, KAVA
 Platform: Raised, DAIS
 Plum: Wild, SLOE
 Pods: Vegetable, OKRA, OKRO
 Poem: Epic, EPOS
 Poet: Persian, OMAR
 Roman, OVID
 Poison, BANE
 Arrow, INEE
 Forkfish, SISI
 Portico: Greek, STOA
 Premium, AGIO
 Priest: Mohammedan, IMAM
 Prima donna, DIVA
 Prong: Fork, TINE
 Pseudonym: Lamb's, ELIA
 Queen: Carthaginian, DIDO
 Hindu, RANI
 Rabbit, CONY
 Race: Of Japan, AINU
 Rail: Ducklike, COOT
 North American, SORA
 Redshank, CLEE
 Refuse: After pressing, MARC
 Regiment: Turkish, ALAI
 Reliquary, ARCA
 Resort: Italian, LIDO
 Ridges: Sandy, ASAR, OSAR
 River: German, ELBE, ODER
 Italian, ADDA
 Siberian, LENA
 Road: Roman, ITER
 Rockfish: California, RENA
 Rodent: Mouselike, VOLE
 South American, PACA
 Rootstock, TARO
 Salamander, NEWT
 Salmon: Silver, COHO
 Young, PARR
 Same (Greek), HOMO
 (Latin), IDEM
 Sauce: Fish, ALEC
 School: English, ETON
 Seaweed, AGAR, ALGA, KELP
 Secular, LAIC
 Sediment, SILT
 Seed: Dill, ANET
 Of vetch, TARE
 Serf, ILOT
 Sesame, TEEL
 Settlement: Eskimo, ETAH
 Shark: Atlantic, GATA
 European, TOPE
 Sheep: Wild, UDAD
 Sheltered, ALEE
 Shield, EGIS
 Ship: Jason's, ARGO
 Left side of, PORT
 Two-masted, BRIG
 Shrine: Buddhist, TOPE
 Shrub: New Zealand, TUTU
 Sign: Magic, RUNE
 Silkworm, ERIA
 Skin: Beaver, PLEW
 Skink: Egyptian, ADDA
 Slave, ESNE
 Sloth: Two-toed, UNAU
 Smooth, LENE
 Snow: Glacial, NEVE
 Soapstone, TALC
 Society: African secret, EGBO, PORO
 Son: Of Seth, ENOS
 Song (German), LIED
 Unaccompanied, GLEE
 Sound: Lung, RALE
 Sour, ACID
 Sow: Young, GILT
 Spike: Brad-shaped, BROB
 Spirit: Buddhist evil, MARA
 Stake: Poker, ANTE
 Star: Temporary, NOVA
 Starch: East Indian, SAGO
 Stone: Precious, OPAL
 Strap: Bridle, REIN
 Strewn (heraldry), SEME
 Sweetsop, ATEs, ATTA
 Sword: Fencing, EPEE, FOIL
 Tambourine: African, TAAR
 Tapir: Brazilian, ANTA
 Tax, CESS
 Tea: South American, MATE
 Therefore (Latin), ERGO
 Thing: Extraordinary, ONER
 Three (dice, cards, etc.), TREY
 Thrush: Hawaiian, OMAO
 Tide, NEAP
 Tipster: Racing, TOUT
 Tissue, TELA
 Title: Etruscan, LARS
 Hindu, BABU
 Indian, RAJA
 Mohammedan, EMIR, IMAM
 Persian, BABA
 Spanish, DONA
 Turkish, AGHA, BABA
 Toad: Largest known, AGUA
 Tree, HYLA
 Tool: Cutting, ADZE
 Track: Deer, SLOT
 Tract: Sandy, DENE
 Tree: Apple, SORB
 Central American, EBOE
 East Indian, TEAK
 Eucalyptus, YATE
 Guiana and Trinidad, MORA
 Javanese, UPAS
 Linden, LIME, LINN, TEIL, TILL
 Sandarac, ARAR
 Sassafras, AGUE
 Tamarisk salt, ATLE
 Tribe: Moro, SULU
 Trout, CHAR
 Urchin: Street, ARAB
 Vessel: Arab, DHOW
 Vestment: Ecclesiastical, COPE
 Vetch, TARE
 Vine: East Indian, SOMA
 Violinist: Famous, AUER
 Vortex, EDDY
 Wampum, PEAG
 Wapiti, STAG
 Waste: Allowance for, TRET
 Watchman: Indian, MINA
 Water (Spanish), AGUA
 Waterfall, LINN
 Wavy (heraldry), ONDE, UNDE
 Wax, CERE
 Chinese, PELA

Weed: Biblical, TARE
 Weight: Ancient, MINA
 Danish (pl.), ESER
 East Asian, TAEI
 Greek, MINA
 Siamese, BAHT
 Well done (rare), EUGE
 Whale, CETE

Killer, ORCA
 White, HUSE, HUSO
 Whirlpool, EDDY
 Wife: Of Geraint, ENID
 Willow: Virginia, ITEA
 Wine, PORT
 Winged, ALAR
 (Heraldry), AILE

Wings, ALAE
 Withered, SERE
 Without (French), SANS
 Wool: To comb, CARD
 Work, OPUS
 Wrong: Civil, TORT
 Young: Bring forth, YEAN

Words of Five Letters

Abode of dead: Babylonian, ARALU
 Aborigine: Borneo, DAYAK
 Aftersong, EPODE
 Aloe, AGAVE
 Animal: Footless, APODE
 Ant, EMMET
 Antelope: African, ADDAX, BEISA,
 CAAMA, ELAND, GUIBA, ORIBI,
 TIANG
 Goat, GORAL, SEROW
 Indian, SASIN
 Siberian, SAIGA
 Arch: Pointed, OGIVE
 Armadillo, APARA, POYOU, TATOU
 Arrowroot, ARARU
 Artery: Trunk, AORTA
 Association: Russian, ARTEL
 Secret, CABAL
 Author: English, READE
 Automaton, GOLEM, ROBOT
 Award: Motion-picture, OSCAR
 Basket: Fishing, CREEL
 Beer: Russian, KVASS
 Bible: Mohammedan, KORAN
 Bird: Asian, MINAH, MYNAH
 Indian, SHAMA
 Larklike, PIPIT
 Loonlike, GREBE
 Oscine, VIREO
 South American, AGAMI
 Swimming, GREBE
 Black: (French), NOIRE
 (Heraldry), SABLE
 Blackbird: European, MERLE, OUSEL,
 OUZEL
 Block: Glacial, SERAC
 Blue (heraldry), AZURE
 Boat: Eskimo, BIDAR, UMIAC
 Bobwhite, COLIN, QUAIL
 Bone (comb. form), OSTEO
 Leg, TIBIA
 Thigh, FEMUR
 Broom: Twig, BESOM
 Brother (French), FRERE
 Moses', AARON
 Canoe: Eskimo, BIDAR, KAYAK
 Cape: Papal, FANON, ORALE
 Caravansary, SERAI
 Card: Old playing, TAROT
 Caterpillar: New Zealand, AWETO
 Catkin, AMENT
 Cavity: Stone, GEODE
 Cephalopod, SQUID
 Cetacean, WHALE
 Charlot, ESSÉD
 Cheek: Pertaining to, MALAR
 Chieftain: Arab, EMEER
 Child (Scotch), BAIRN

Cigar, CLARO
 Coating: Seed, TESTA
 Cockatoo: Palm, ARARA
 Coin: Costa Rican, COLON
 Danish, KRONE
 Ecuadorian, SUCRE
 English, GROAT, PENCE
 French, FRANC
 German, KRONE, TALER
 Hungarian, PENGÓ
 Icelandic, KRONA
 Indian, RUPEE
 Iraqi, DINAR
 Norwegian, KRONE
 Polish, ZLOTY
 Russian, COPEC, KOPEK, RUBLE
 Swedish, KRONA
 Turkish, ASPER
 Yugoslav, DINAR
 Collar: Papal, FANON, ORALE
 Roman, RABAT
 Commune: Italian, TREIA
 Composition: Choral, MOTET
 Compound: Chemical, ESTER
 Conceal (law), ELOIN
 Council: Ecclesiastical, SYNOD
 Court: Anglo-Saxon, GEMOT
 Inner, PATIO
 Crest: Mountain, ARETE
 Crown: Papal, TIARA
 Cuttlefish, SEPIA
 Date: Roman, NONES
 Decree: Mohammedan, IRADE
 Russian, UKASE
 Deposit: Loam, LOESS
 Desert: Gobi, SHAMO
 Devilfish, MANTA
 Disease: Cereals, ERGOT
 Disk, PATEN
 Dog: Wild, DHOLE, DINGO
 Dormouse, LEROT
 Drum, TABOR
 Duck: Sea, EIDER
 Dynasty: Chinese, CHING, LIANG, SHANG
 Earthquake, SEISM
 Eel, ELVER, MORAY
 Ermine: European, STOAT
 Ether: Crystalline, APIOL
 Fabric: Velvetlike, PANNE
 Fabulist, AESOP
 Family: Italian, CENCI
 Fiber: West Indian, SISAL
 Fig: Smyrna, ELEME, ELEMI
 Figure: Of speech, TROPE
 Finch: European, SERIN
 Fish: American small, KILLY
 Flower: Garden, ASTER
 Friend (Spanish), AMIGO

- Fruit: Tropical, MANGO
 Fungus: Rye, ERGOT
 Furze, GORSE
 Gateway, TORAN, TORII
 Gem, AGATE, BERYL, PEARL, TOPAZ
 Genus: Barnacles, LEPAS
 Bears, URSUS
 Birds (loons), GAVIA
 Birds (nuthatches), SITTA
 Cats, FELIS
 Dogs, CANIS
 Fishes (chiroi), ELOPS
 Fishes (perch), PERCA
 Geese, ANSER
 Grasses, STIPA
 Grasses (incl. oats), AVENA
 Gulls, LARUS
 Hares, rabbits, LEPUS
 Hawks, BUTEO
 Herbs, old world, INULA
 Herbs, trailing or climbing, APIOS
 Herbs, tropical, TACCA, URENA
 Horses, EQUUS
 Insects (olive flies), DACUS
 Lice, plant, APHIS
 Lichens, USNEA
 Lizards, AGAMA
 Moles, TALPA
 Mollusks, OLIVA
 Monkeys, CEBUS
 Palms, ARECA
 Pigeons, GOURA
 Plants (amaryllis family), AGAVE
 Ruminants (goats), CAPRA
 Shrubs, Asiatic, SABIA
 Shrubs (heath), ERICA
 Shrubs (incl. raspberry), RUBUS
 Shrubs, tropical, IXORA, TREMA,
 URENA
 Ticks, ARGAS
 Trees (of elm family), TREMA, ULMUS
 Trees, tropical, IXORA, TREMA
 Goat: Bezoar, PASAN
 God: Assyrian, ASHUR, ASHUR, ASSUR
 Babylonian, DAGAN, SIRIS
 Gaelic, DAGDA
 Hindu, BHAGA, INDRA, SHIVA
 Japanese, EBISU
 Philitine, DAGON
 Phrygian, ATTIS
 Teutonic, AEGIR, GYMIR
 Welsh, DYLAN
 Goddess: Babylonian, ISTAR, NANAI
 Hindu, DURGA, GAURI, SHREE
 Group: Of six, HEXAD
 Grove: Sacred to Diana, NEMUS
 Growing out, ENATE
 Guitar: Hindu, SITAR
 Gull: PEWEE, PEWIT
 Hartbeest, CAAMA
 Headdress: Jewish or Persian, TIARA
 Liturgical, MITER, MITRE
 Heath, ERICA
 Herb: Grasslike marsh, SEDGE
 Heron, EGRET
 Hog: Young, SHOAT, SHOTE
 Image, EIKON
 Indian: Cariban, ARARA
 Iroquoian, HURON
 Mexican, AZTEC, OPATA, OTOMI
 Muskhogeian, CREEK
 Siouan, OSAGE, TETON
 Spanish American, ARARA, CARIB
 Inflorescence: Racemose, AMENT
 Insect: Immature, LARVA
 Intrigue, CABAL
 Iris: Yellow, SEDGE
 Juniper, GORSE, RETEM
 Kidneys: Pertaining to, RENAL
 King: British legendary, LLUDD
 Kite: European, GLEDE
 Kobold, NISSE
 Land: Cultivated, ARADA, ARADO
 Landholder (Scotch), LAIRD, THANE
 Language: Dravidian, TAMIL
 Lariat, LASSO, REATA
 Laughing, RIANP
 Lawgiver: Athenian, DRACO, SOLON
 Leaf: Calyx, SEPAL
 Fern, FROND
 Lemur, LORIS
 Letter: English, AITCH
 Greek, ALPHA, DELTA, GAMMA,
 KAPPA, OMEGA, SIGMA, THETA
 Hebrew, ALEPH, CHETH, GIMEL,
 SADHE, ZAYIN
 Lichen, USNEA
 Lighthouse, PHARE
 Lizard: Old World, AGAMA
 Loincloth, DHOTI
 Louse: Plant, APHID
 Macaw: Brazilian, ARARA
 Mahogany: Philippine, ALMON
 Mammal: Badgerlike, RATEL
 Civetlike, GENET
 Giraffelike, OKAPI
 Raccoonlike, COATI
 Man (French), HOMME
 Marble, AGATE
 Mark: Insertion, CARET
 Market place: Greek, AGORA
 Marsupial: Australian, KOALA
 Measure: Electric, FARAD, HENRY
 Energy, JOULE
 Metric, LITER, STERE
 Printing, AGATE
 Russian, VERST
 Mixture: Smelting, MATTE
 Mohicans: Last of, UNCAS
 Molding: Convex, OVOLO, TORUS
 Mole, TALPA
 Monkey: African, PATAS
 Capuchin, SAJOU
 Howling, ARABA
 Monkshood, ATEES
 Month: Jewish, NISAN, SIVAN, TEBET
 Museum (French), MUSEE
 Musketeer, ATHOS
 Native: Aleutian, ALEUT
 New Zealand, MAORI
 Neckpiece: Ecclesiastical, AMICE
 Nerve (comb. form), NEURO
 Nest: Eagle's or hawk's, AERIE
 Insect's, NIDUS
 Net: Fishing, SEINE
 Newsstand, KIOSK

- Nitrogen, AZOTE
 Noble: Mohammedan, AMEER
 Nodule: Stone, GEODE
 Nostrils, NARES
 Notched irregularly, EROSE
 Nymph: Mohammedan, HOURI
 Official: Roman, EDILE
 Oleoresin, ELEMI
 Opening: Mouthlike, STOMA
 Oration: Funeral, ELOGE
 Ostiole, STOMA
 Page: Left-hand, VERSO
 Right-hand, RECTO
 Palm, ARECA, BETEL
 Park: Colorado, ESTES
 Perfume, ATTAR
 Philosopher: Greek, PLATO
 Pillar: Stone, STELA, STELE
 Pinnacle: Glacial, SERAC
 Plain, LLANO
 Plant: Century, AGAVE
 Climbing, LIANA
 Dwarf, CUMIN
 East Asian perennial, RAMIE
 Medicinal, SENNA
 Mustard family, CRESS
 Plate: Communion, PATEN
 Poem: Lyric, EPODE
 Point: Lowest, NADIR
 Poplar, ABELE, ALAMO, ASPEN
 Porridge: Spanish American, ATOLE
 Post: Stair, NEWEL
 Priest: Mohammedan, IMAUM
 Protozoan, AMEBA
 Queen: (French), REINE
 Hindu, RANEE
 Rabbit, CONEY
 Rail, CRAKE
 Red (heraldry), GULES
 Religion: Moslem, ISLAM
 Resin, ELEMI
 Revoke (law), ADEEM
 Rich man, MIDAS, NABOB
 Ridge: Sandy, ESKAR, ESKER
 River: French, LOIRE, SEINE
 Rockfish: California, REINA
 Rootstock: Fragrant, ORRIS
 Ruff: Female, REEVE
 Sack: Pack, KYACK
 Salt: Ethereal, ESTER
 Saltpeter, NITER, NITRE
 Salutation: Eastern, SALAM
 Sandpiper: Old World, TEREK
 Scented, OLENT
 School: Fish, SHOAL
 French public, LYCEE
 Scriptures: Mohammedan, KORAN
 Seaweeds, ALGAE
 Seed: Aromatic, ANISE
 Seraglio, HAREM, SERAI
 Serf, HELOT
 Sheep: Wild, AUDAD
 Sheeplike, OVINE
 Shield, AEGIS
 Shoe: Wooden, SABOT
 Shoots: Pickled bamboo, ACHAR
 Shot: Billiard, CAROM, MASSE
 Shrine: Buddhist, STUPA
 Shrub: Burning bush, WAHOO
 Ornamental evergreen, TOYON
 Used in tanning, SUMAC
 Silk: Watered, MOIRE
 Sister (French), SOEUR
 (Latin), SOROR
 Six: Group of, HEXAD
 Skeleton: Marine, CORAL
 Slave, HELOT
 Snake, ABOMA, ADDER, COBRA, RACER
 Soldier: French, POILU
 Indian, SEPOY
 Sour, ACERB
 Spirit: Air, ARIEL
 Staff: Shepherd's, CROOK
 Starwort, ASTER
 Steel (German), STAHL
 Stockade: Russian, ETAPE
 Stop (nautical), AVAST
 Storehouse, ETAPE
 Subway: Parisian, METRO
 Tapestry, ARRAS
 Tea: Paraguayan, YERBA
 Temple: Hawaiian, HEIAU
 Terminal: Positive, ANODE
 Theater: Greek, ODEON, ODEUM
 Then (French), ALORS
 Thread: Surgical, SETON
 Thrush: Wilson's, VEERY
 Title: Hindu, BABOO
 Indian, RAJAH, SAHEB, SAHIB
 Mohammedan, EMEER, IMAUM
 Tree: Buddhist sacred, PIPAL
 East Indian cotton, SIMAL
 Hickory, PECAN
 Light-wooded, Balsa
 Malayan, TERAP
 Mediterranean, CAROB
 Mexican, ABETO
 Mexican pine, OCOTE
 New Zealand, MAIRE
 Philippine, ALMON
 Rain, SAMAN
 South American, UMBRA
 Tamarack, LARCH
 Tamarisk salt, ATLEE
 West Indian, ACANA
 Trout, CHARR
 Troy, ILION, ILIUM
 Twin: Slamese, CHANG
 Vestment: Ecclesiastical, STOLE
 Violin: Famous, AMATI, STRAD
 Volcano: Mud, SALSE
 Wampum, PEAGE
 War cry: Greek, ALALA
 Wavy (heraldry), UNDEE
 Weight: Jewish, GERAH
 Wen, TALPA
 Wheat, SPELT
 Wheel: Persian water, NORIA
 Whitefish, CISCO
 Willow, OSIER
 Window: Bay, ORIEL
 Wine, MEDOC, RHINE, TINTA, TOKAY
 Winged, ALATE
 Woman (French), FEMME
 Year: Excess of solar over lunar, EPACT
 Zoroastrian, PARSII

Words of Six or More Letters

- Agave, MAGUEY
 Alkaloid: Crystalline, ESERIN, ESERINE
 Alligator, CAYMAN
 Amphibole, EDENITE, URALITE
 Ant: White, TERMITE
 Antelope: African, DIKDIK, DUIKER,
 GEMSBOK, IMPALA, KOODOO
 European, CHAMOIS
 Indian, NILGAI, NILGAU, NILGHAI,
 NILGHAU
 Ape: Asian or East Indian, GIBBON
 Appendage: Leaf, STIPEL, STIPULE
 Armadillo, PELUDO, TATOUAY
 Arrowroot, ARARAO
 Ascetic: Jewish, ESSENE
 Ass: Asian wild, ONAGER
 Avatar: Of Vishnu, KRISHNA
 Babylonian, ELAMITE
 Badge: Shoulder, EPAULET
 Baldness, ALOPECIA
 Barracuda, SENNET
 Bark: Aromatic, SINTOC
 Bearlike, URSINE
 Beetle, ELATER
 Bible: Zoroastrian, AVESTA
 Bird: Sea, PETREL
 South American, SERIEMA
 Wading, AVOCET, AVOSET
 Bone: Leg, FIBULA
 Branched, RAMATE
 Brother (Latin), FRATER
 Bunting: European, ORTOLAN
 Call: Trumpet, SENNET
 Canoe: Eskimo, BAIJAR, OOMIAK
 Caravansary, IMARET
 Cat: Asian or African, CHEETAH
 Leopardlike, OCELOT
 Cenobite: Jewish, ESSENE
 Centerpiece: Table, EPERGNE
 Cetacean, DOLPHIN, PORPOISE
 Chariot, ESSEDA, ESSEDE
 Chief: Seminole, OSCEOLA
 Claim: Release as (law), REMISE
 Clock: Water, CLEPSYDRA
 Cloud, CUMULUS, NIMBUS
 Coach: French hackney, FIACRE
 Coin: Czech, KORUNA
 Ethiopian, TALARI
 Finnish, MARKKA
 German, THALER
 Greek, DRACHMA
 Haitian, GOURDE
 Honduran, LEMPIRA
 Hungarian, FORINT
 Indo-Chinese, PIASTER
 Netherlands, GUILDER
 Panamanian, BALBOA
 Paraguayan, GUARANI
 Portuguese, ESCUDO
 Russian, COPECK, KOPECK, ROUBLE
 Spanish, PESETA
 Venezuelan, BOLIVAR
 Communion: Last holy, VIATICUM
 Conceal (law), ELOIGN
 Confection, PRALINE
 Construction: Sentence, SYNTAX
 Convexity: Shaft of column, ENTASIS
 Court: Anglo-Saxon, GEMOTE
 Cow: Sea, DUGONG, MANATEE
 Cylindrical, TERETE
 Dagger, STILETTO
 Malay, CREESE, KREESE
 Date: Roman, CALENDIS, KALENDIS
 Deer, CARIBOU, WAPITI
 Disease: Plant, ERINOSE
 Doorkeeper, OSTIARY
 Dragonflies: Order of, ODANATA
 Drink: Of gods, NECTAR
 Drum: TABOUR
 Moorish, ATABAL, ATTABAL
 Duck: Fish-eating, MERGANSER
 Sea, SCOTER
 Dynasty: Chinese, MANCHU
 Eel, CONGER
 Edit, REDACT
 Envelope: Flower, PERIANTH
 Eskimo, AMERIND
 Ether: Crystalline, APIOLE
 Excuse (law), ESSOIN
 Eyespots, OCELLI
 Fabric, ESTAMENE, ESTAMIN, ETAMINE
 Falcon: European, KESTREL
 Figure: Used as column, CARYATID,
 TELAMON
 Fine: For punishment, AMERCE
 Fish: Asian fresh-water, GOURAMI
 Pike-like, BARRACUDA
 Five: Group of, PENTAD
 Fly: African, TSETSE
 Foot: Metric, ANAPEST, IAMBUS
 Foxlike, VULPINE
 Frying pan, SPIDER
 Fur, KARAKUL
 Galley: Greek or Roman, BIREME,
 TRIEME
 Game: Card, ECARTE
 Garment: Greek, CHLAMYD
 Gateway, GOPURA, TORANA
 Genus: Birds (ravens, crows), CORVUS
 Eels, CONGER
 Fishes, ANABAS
 Foxes, VULPES
 Herbs, ANEMONE
 Insects, CICADA
 Lemurs, GALAGO
 Mints (incl. catnip), NEPETA
 Mollusks, ANOMIA, ASTARTE, TEREDO
 Mollusks (incl. oysters), OSTREA
 Monkeys (spider monkeys), ATELES
 Thrushes (incl. robins), TURDUS
 Trees (of elm family), CELTIS
 Trees (incl. dogwood), CORNUS
 Trees, tropical American, SAPOTA
 Wrens, NANNUS
 Gibbon, SIAMANG, WOUWOU
 Gland: Salivary, RACEMOSE
 Goat: Bezoar, PASANG
 Goatlike, CAPRINE
 God: Assyrian, ASSHUR, ASSHUR
 Babylonian, BABBAR, MARDUK, MERO-
 DACH, NANNAR, NERGAL, SHAMASH
 Hindu, BRAHMA, KRISHNA, VISHNU
 Tahitian, TAAROA
 Goddess: Babylonian, ISHTAR

- Hindu, CHANDI, HAIMAVATI,
 LAKSHMI, PARVATI, SARASVATI,
 SARASWATI
 Government, POLITY
 Governor: Persian, SATRAP
 Grandson (Scotch), NEPOTE
 Group: Of five, PENTAD
 Of nine, ENNEAD
 Of seven, HEPTAD
 Hare: In first year, LEVERET
 Harpsichord, SPINET
 Herb: Alpine, EDELWEISS
 Chinese, GINSENG
 South African, FREESIA
 Hermit, EREMIT
 Hero: Legendary, PALADIN
 Heron, BITTERN
 Horselike, EQUINE
 Hound: Short-legged, BEAGLE
 House (French), MAISON
 Idiot, CRETIN
 Implement: Stone, NEOLITH
 Incarnation: Hindu, AVATAR
 Indian, APACHE, COMANCHE, PAIUTE,
 SENECA
 Inn: Turkish, IMARET
 Insects: Order of, DIPTERA
 Instrument: Japanese banjolike, SAMISEN
 Musical, CLAVIER, SPINET
 Interstice, AREOLA
 Ironwood, COLIMA
 Juniper: Old Testament, RAETAM
 Kettledrum, ATABAL
 King: Fairy, OBERON
 Kneecap, PATELLA
 Knife, MACHETE
 Langur: Sumatran, SIMPAI
 Legislature: Spanish, CORTES
 Lemür: African, GALAGO
 Madagascar, AYEAYE
 Letter: Greek, EPSILON, LAMBDA, OMI-
 CRON, UPSILON
 Hebrew: DALETH, LAMEDH, SAMEKH
 Lighthouse, PHAROS
 Lizard, IGUANA
 Llama, ALPACA
 Lockjaw, TETANUS
 Locust, CICADA, CICALA
 Macaw: Brazilian, MARACAN
 Maid: Of Astolat, ELAINE
 Mammal: Madagascar, TENDRAC,
 TENREC
 Man (Spanish), HOMBRE
 Marmoset: South American, TAMARIN
 Marsupial, BANDICOOT, WOMBAT
 Massacre, POGROM
 Mayor: Spanish, ALCALDE
 Measure: Electric, AMPERE, COULOMB,
 KILOWATT
 Medicine: Quack, NOSTRUM
 Member: Religious order, CENOBITE
 Molasses, TREACLE
 Monkey: African, GRIVET, NISNAS
 Asian, LANGUR
 Philippine, MACHIN
 South American, PINCHE, SAIMIRI,
 SAMIRI, SAPAJOU
 Monster, CHIMERA, GORGON
 (Comb. form), TERATO
 Cretan, MINOTAUR
 Month: Jewish, HESHVAN, KISLEV, SHE-
 BAT, TAMMUZ, TISHRI, VEADAR
 Mountain: Asia Minor, ARARAT
 Mulet, AMERCE
 Musketeer, ARAMIS, PORTHOS
 Nearsighted, MYOPIE
 Net, TRAMMEL
 New York City, GOTHAM
 Nine: Group of, ENNEAD
 Nobleman: Spanish, GRANDEE
 Official: Roman, AEDILE
 Onyx: Mexican, TECALI
 Order: Dragonflies, ODANATA
 Insects, DIPTERA
 Organ: Plant, PISTIL
 Ornament: Shoulder, EPAULET
 Overcoat: Military, CAPOTE
 Ox: Wild, BANTENG
 Oxidation: Bronze or copper, PATINA
 Paralysis: Incomplete, PARESIS
 Pear: Alligator, AVOCADO
 Persimmon: Mexican, CHAPOTE
 Pipe: Peace, CALUMET
 Plaid (Scotch), TARTAN
 Plain, PAMPAS, STEPPE, TUNDRA
 Plant: Buttercup family, ANEMONE
 Century, MAGUEY
 On rocks, LICHEN
 Plowing: Fit for, ARABLE
 Poem: Heroic, EPOPEE
 Six-lined, SESTET
 Point: Highest, ZENITH
 Potion: Love, PHILTRE, PHILTRE
 Protozoan, AMOEBA
 Punish, AMERCE
 Purple (heraldry), PURPURE
 Queen: Fairy, TITANIA
 Race: Skiing, SLALOM
 Rat, BANDICOOT, LEMMING
 Retort, RIPOST, RIPOSTE
 Ring: Harness, TERRET
 Little, ANNULET
 Rodent: Jumping, JERBOA
 Spanish American, AGOUTI, AGOUTY
 Sailor: East Indian, LASCAR
 Salmon: Young, GRILSE
 Salutation: Eastern, SALAAM
 Sandpiper, PLOVER
 Sandy, ARENOSE
 Sapodilla, SAPOTA, SAPOTE
 Saw: Surgical, TREPAN
 Seven: Group of, HEPTAD
 Sexes: Common to both, EPICENE
 Shawl: Mexican, SERAPE
 Sheathing: Flower, SPATHE
 Sheep: Wild, AOUDAD, ARGALI
 Shipworm, TEREDO
 Shoes: Mercury's winged, TALARIA
 Shortening: Syllable, SYSTOLE
 Shrub, SPIRAEA
 Sickle-shaped, FALCATE
 Silver (heraldry), ARGENT
 Snake, ANACONDA
 Speech: Loss of, APHASIA
 Spiral, HELICAL
 Staff: Bishop's, CROSIER, CROZIER

Stalk: Plant, PETIOLE
 State: Swiss, CANTON
 Studio, ATELIER
 Swan: Young, CYGNET
 Swimming, NATANT
 Sword-shaped, ENSATE
 Terminal: Negative, CATHODE
 Third (music), TIERCE
 Thrust: Fencing, RIPOST, RIPOSTE
 Tile: Pertaining to, TEGULAR
 Tomb: Empty, CENOTAPH
 Tooth (comb. form), ODONTO
 Tower: Mohammedan, MINARET
 Tree: African timber, BAOBAB
 Black gum, TUPELO
 East Indian, MARGOSA
 Locust, ACACIA
 Malayan, SINTOC
 Marmalade, SAPOTE
 Urn: Tea, SAMOVAR
 Vehicle, LANDAU, TROIKA

Verbose, PROLIX
 Viceroy: Egyptian, KHEDIVE
 Vulture: American, CONDOR
 Warehouse (French), ENTREPOT
 Whale: White, BELUGA
 Whirlpool, VORTEX
 Will: Addition to, CODICIL
 Having left, TESTATE
 Wind, CHINOOK, MONSOON, SIMOOM,
 SIMOON, SIROCCO
 Window: In roof, DORMER
 Wine, BARBERA, BURGUNDY, CABER-
 NET, CHABLIS, CHIANTI, CLARET,
 MUSCATEL, RIESLING, SAUTERNE,
 SHERRY, ZINFANDEL
 Wolfish, LUPINE
 Woman: Boisterous, TERMAGANT
 Woolly, LANATE
 Workshop, ATELIER
 Zoroastrian, PARSEE

Old-Testament Names

(We do not pretend that this list is all-inclusive. We include only those names which in our opinion one meets most often in crossword puzzles.)

AARON: First high priest of Jews; son of Amram; brother of Miriam and Moses; father of Abihu, Eleazer, Ithamar, and Nadab.

ABEL: Son of Adam; slain by Cain.

ABIGAIL: Wife of Nabal; later, wife of David.

ABIHU: Son of Aaron.

ABIMELECH: King of Gerar.

ABNER: Commander of army of Saul and Ishbosheth; slain by Joab.

ABRAHAM (or ABRAM): Patriarch; forefather of the Jews; son of Terah; husband of Sarah; father of Isaac and Ishmael.

ABSALOM: Son of David and Maacah; revolted against David; slain by Joab.

ACHISH: King of Gath; gave refuge to David.

ACHSA (or ACHSAH): Daughter of Caleb; wife of Othniel.

ADAH: Wife of Lamech.

ADAM: First man; husband of Eve; father of Cain, Abel, and Seth.

ADONIJAH: Son of David and Haggith.

AGAG: King of Amalek; spared by Saul; slain by Samuel.

AHASUERUS: King of Persia; husband of Vashti and, later, Esther; sometimes identified with Xerxes the Great.

AHIJAH: Prophet; foretold accession of Jeroboam.

AHINOAM: Wife of David.

AMASA: Commander of army of David; slain by Joab.

AMNON: Son of David and Ahinoam; ravished Tamar; slain by Absalom.

AMRAM: Husband of Jochebed; father of Aaron, Miriam and Moses.

ASENATH: Wife of Joseph.

ASHER: Son of Jacob and Zilpah.

BALAAM: Prophet; rebuked by his donkey for cursing God.

BARAK: Jewish captain; associated with Deborah.

BARUCH: Secretary to Jeremiah.

BATHSHEBA: Wife of Uriah; later, wife of David.

BELSHAZZAR: Crown prince of Babylon.

BENAJAH: Warrior of David; proclaimed Solomon King.

BEN-HADAD: Name of several kings of Damascus.

BENJAMIN: Son of Jacob and Rachel.

BEZALEEL: Chief architect of tabernacle.

BILDAD: Comforter of Job.

BILBAH: Servant of Rachel; mistress of Jacob.

BOAZ: Husband of Ruth; father of Obed.

CAIN: Son of Adam and Eve; slayer of Abel; father of Enoch.

CAINAN: Son of Enos.

CALEB: Spy sent out by Moses to visit Canaan; father of Achsa.

CANAAN: Son of Ham.

CHILION: Son of Elimelech; husband of Orpah.

CUSH: Son of Ham; father of Nimrod.

DAN: Son of Jacob and Bilhah.

DANIEL: Prophet; saved from lions by God.

DEBORAH: Hebrew prophetess; helped Israelites conquer Canaanites.

DELILAH: Mistress and betrayer of Samson.

ELAM: Son of Shem.

ELEAZAR: Son of Aaron; succeeded him as high priest.

ELI: High priest and judge; teacher of Samuel; father of Hophni and Phinehas.

ELIAKIM: Chief minister of Hezekiah.

ELIEZER: Servant of Abraham.

ELIHU: Comforter of Job.

ELIJAH (or **ELIAS**): Prophet; went to heaven in chariot of fire.
ELIMELECH: Husband of Naomi; father of Chilion and Mahlon.
ELIPHAZ: Comforter of Job.
ELISHA (or **ELISEUS**): Prophet; successor of Elijah.
ELKANAH: Husband of Hannah; father of Samuel.
ENOCH: Son of Cain.
ENOCH: Father of Methuselah.
ENOS: Son of Seth; father of Cainan.
EPHRAIM: Son of Joseph.
ESAU: Son of Isaac and Rebecca; sold his birthright to his brother Jacob.
ESTHER: Jewish wife of Ahasuerus; saved Jews from Haman's plotting.
EVE: First woman; created from rib of Adam.
EZRA (or **ESDRAS**): Hebrew scribe and priest.
GAD: Son of Jacob and Zilpah.
GEHAZI: Servant of Elisha.
GIDEON: Israelite hero; defeated Midianites.
GOLIATH: Philistine giant; slain by David.
HAGAR: Handmaid of Sarah; concubine of Abraham; mother of Ishmael.
HAGGITH: Mother of Adonijah.
HAM: Son of Noah; father of Cush, Mizraim, Phut, and Canaan.
HAMAN: Chief minister of Ahasuerus; executed on gallows prepared for Mordecai.
HANNAH: Wife of Elkanah; mother of Samuel.
HANUN: King of Ammonites.
HARAN: Brother of Abraham; father of Lot.
HAZAEI: King of Damascus.
HEPHZI-BAH: Wife of Hezekiah; mother of Mannaseh.
HIRAM: King of Tyre.
HOLOFERNES: General of Nebuchadnezzar; slain by Judith.
HOPHNI: Son of Eli.
ISAAC: Hebrew patriarch; son of Abraham and Sarah; half brother of Ishmael; husband of Rebecca; father of Esau and Jacob.
ISHMAEL: Son of Abraham and Hagar; half brother of Isaac.
ISSACHAR: Son of Jacob and Leah.
ITHAMAR: Son of Aaron.
JABAL: Son of Lamech and Adah.
JABIN: King of Hazor.
JACOB: Hebrew patriarch, founder of Israel; son of Isaac and Rebecca; husband of Leah and Rachel; father of Asher, Benjamin, Dan, Gad, Issachar, Joseph, Judah, Levi, Naphtali, Reuben, Simeon, and Zebulun.
JAEL: Slayer of Sisera.
JAPHETH: Son of Noah.
JEHOIADA: High priest; husband of Jehoshabeath; revolted against Athaliah and made Joash King of Judah.

JEHOSHABEATH (or **JEHOSHEBA**): Daughter of Jehoram of Judah; wife of Jehoiada.
JEPHTHAH: Judge in Israel; sacrificed his only daughter because of vow.
JESSE: Son of Obed; father of David.
JETHRO: Midianite priest; father of Zipporah.
JEZEBEL: Phoenician princess; wife of Ahab; mother of Ahaziah, Athaliah, and Jehoram.
JOAB: Commander in chief under David; slayer of Abner, Absalom, and Amasa.
JOB: Patriarch; underwent many afflictions; comforted by Bildad, Elihu, Eliphaz and Zophar.
JOCHEBED: Wife of Amram.
JONAH: Prophet; cast into sea and swallowed by great fish.
JONATHAN: Son of Saul; friend of David.
JOSEPH: Son of Jacob and Rachel; sold into slavery by his brothers; husband of Asenath; father of Ephraim and Manassah.
JOSHUA: Successor of Moses; son of Nun.
JUBAL: Son of Lamech and Adah.
JUDAH: Son of Jacob and Leah.
JUDITH: Slayer of Holofernes.
KISH: Father of Saul.
LABAN: Father of Leah and Rachel.
LAMECH: Son of Methuselah; father of Noah.
LAMECH: Husband of Adah and Zillah; father of Jabal, Jubal, and Tubal-Cain.
LEAH: Daughter of Laban; wife of Jacob.
LEVI: Son of Jacob and Leah.
LOT: Son of Haran; escaped destruction of Sodom.
MAACAH: Mother of Absalom and Tamar.
MAHLON: Son of Elimelech; first husband of Ruth.
MANASSEH: Son of Joseph.
MELCHIZEDEK: King of Salem.
METHUSELAH: Patriarch; son of Enoch; father of Lamech.
MICHAEL: Daughter of Saul; wife of David.
MIRIAM: Prophetess; daughter of Amram; sister of Aaron and Moses.
MIZRAIM: Son of Ham.
MORDECAI: Uncle of Esther; with her aid, saved Jews from Haman's plotting.
MOSES: Prophet and lawgiver; son of Amram; brother of Aaron and Miriam; husband of Zipporah.
NAAMAN: Syrian captain; cured of leprosy by Elisha.
NABAL: Husband of Abigail.
NABOTH: Owner of vineyard; stoned to death because he would not sell it to Ahab.
NADAB: Son of Aaron.
NAHOR: Father of Terah.

NAOMI: Wife of Elimelech; mother-in-law of Ruth.

NAPHTALI: Son of Jacob and Bilhah.

NATHAN: Prophet; reproved David for causing Uriah's death.

NEBUCHADNEZZAR (or **NEBUCHAD-REZZAR**): King of Babylon; destroyer of Jerusalem.

NEHEMIAH: Jewish leader; empowered by Artaxerxes to rebuild Jerusalem.

NIMROD: Mighty hunter; son of Cush.

NOAH: Patriarch; Son of Lamech; escaped Deluge by building Ark; father of Ham, Japheth and Shem.

NUN (or **NON**): Father of Joshua.

OBEED: Son of Boaz; father of Jesse.

OG: King of Bashan.

ORPAH: Wife of Chilion.

OTHNIEL: Kenezite; judge of Israel; husband of Achsa.

PHINEHAS: Son of Eleazer.

PHINEHAS: Son of Eli.

PHUT (or **PUT**): Son of Ham.

POTIPHAR: Egyptian official; bought Joseph.

RECHEL: Wife of Jacob.

REBECCA (or **REBEKAH**): Wife of Isaac.

REUBEN: Son of Jacob and Leah.

RUTH: Wife of Mahlon, later of Boaz; daughter-in-law of Naomi.

SAMSON: Judge of Israel; famed for strength; betrayed by Delilah.

SAMUEL: Hebrew judge and prophet; son of Elkanah.

SARAH (or **SARA**, **SARAI**): Wife of Abraham.

SENNACHERIB: King of Assyria.

SETH: Son of Adam; father of Enos.

SHEM: Son of Noah; father of Elam.

SIMEON: Son of Jacob and Leah.

SISERA: Canaanite captain; slain by Jael.

TAMAR: Daughter of David and Maachah; ravished by Amnon.

TERAH: Son of Nahor; father of Abraham.

TUBAL-CAIN: Son of Lamech and Zillah.

URIAH: Husband of Bathsheba; sent to death in battle by David.

VASHTI: Wife of Ahasuerus; set aside by him.

ZADOK: High priest during David's reign.

ZEBULUN (or **ZABULON**): Son of Jacob and Leah.

ZILLAH: Wife of Lamech.

ZILPAH: Servant of Leah; mistress of Jacob.

ZIPPORAH: Daughter of Jethro; wife of Moses.

ZOPHAR: Comforter of Job.

Kings of Judah and Israel

Kings Before Division of Kingdom

SAUL: First King of Israel; son of Kish; father of Ish-Bosheth, Jonathan and Michal.

ISH-BOSHETH (or **ESHBAAL**): King of Israel; son of Saul.

DAVID: King of Judah; later of Israel; son of Jesse; husband of Abigail, Ahinoam, Bathsheba, Michal, etc.; father of Absalom, Adonijah, Amnon, Solomon, Tamar, etc.

SOLOMON: King of Israel and Judah; son of David; father of Rehoboam.

REHOBOAM: Son of Solomon; during his reign the kingdom was divided into Judah and Israel.

Kings of Judah (Southern Kingdom)

REHOBOAM: First King.

ABIJAH (or **ABIJAM** or **ABIA**): Son of Rehoboam.

ASA: Probably son of Abijah.

JEHOSHAPHAT: Son of Asa.

JEHORAM (or **JORAM**): Son of Jehoshaphat; husband of Athaliah.

AHAZIAH: Son of Jehoram and Athaliah.

ATHALIAH: Daughter of King Ahab of Israel and Jezebel; wife of Jehoram.

JOASH (or **JEHOASH**): Son of Ahaziah.

AMAZIAH: Son of Joash.

UZZIAH (or **AZARIAH**): Son of Amaziah.

JOTHAM: Regent, later King; son of Uzziah.

AHAZ: Son of Jotham.

HEZEKIAH: Son of Ahaz; husband of Hephzi-Bah.

MANASSEH: Son of Hezekiah and Hephzi-Bah.

AMON: Son of Manasseh.

JOSIAH (or **JOSIAS**): Son of Amon.

JEHOAHAZ (or **JOAHAZ**): Son of Josiah.

JEHOIAKIM: Son of Josiah.

JEHOIACHIN: Son of Jehoiakim.

ZEDEKIAH: Son of Josiah; kingdom overthrown by Babylonians under Nebuchadnezzar.

Kings of Israel (Northern Kingdom)

JEEROBOAM I: Led secession of Israel.

NADAB: Son of Jeroboam I.

BAASHA: Overthrew Nadab.

ELAH: Son of Baasha.

ZIMRI: Overthrew Elah.

OMRI: Overthrew Zimri.

AHAB: Son of Omri; husband of Jezebel.

AHAZIAH: Son of Ahab.

JEHORAM (or **JORAM**): Son of Ahab.

JEHU: Overthrew Jehoram.

JEHOAHAZ (or **JOAHAZ**): Son of Jehu.

JEHOASH (or **JOASH**): Son of Jehoahaz.

JEROBOAM II: Son of Jehoash.
ZECHARIAH: Son of Jeroboam II.
SHALLUM: Overthrew Zechariah.
MENAHEM: Overthrew Shallum.

PEKAHIAH: Son of Menahem.
PEKAH: Overthrew Pekahiah.
HOSHEA: Overthrew Pekah; kingdom
overthrown by Assyrians under Sargon II.

Prophets

Major

ISAIAH	JEREMIAH	EZEKIEL	DANIEL
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Minor

HOSEA	OBADIAH	NAHUM	HAGGAI
JOEL	JONAH	HABAKKUK	ZECHARIAH
AMOS	MICAH	ZEPHANIAH	MALACHI

Foreign Phrases

(NOTE: The English meanings given are not necessarily literal translations.)

AB OVO: From the beginning.
ABSIT OMEN: Hope this is no bad luck.
AEQUO ANIMO: Undisturbed in mind.
AD VALOREM: According to its value.
ALEA JACTA EST: The die is cast.
ALMA MATER: One's college or school.
ALTER EGO: Other self.
AMICUS CURIAE: Friend of the court.
ANNO DOMINI: Year of our Lord.
BEL CANTO: A style of singing marked
by virtuosity and beauty.

BETE NOIRE: Particular nemesis.
BONA FIDE: In good faith; genuine.
CARPE DIEM: Enjoy today.
CASUS BELLI: Cause of war.
CAVEAT EMPTOR: Buy at your own
risk.

CORPUS DELICTI: Fundamental fact or
facts necessary to commission of a crime.
CUI BONO: To whose advantage?
CUM GRANO SALIS: With a grain of
salt.

DE FACTO: As a matter of fact; because
of this fact.

DEO GRATIAS: Thanks be to God.
DEUS EX MACHINA: Artificially pro-
duced to bring a solution of some extreme
difficulty.

ECCE HOMO: This is the man.
ERRARE HUMANUM (EST): To err is
human.

FESTINALENTE: Make haste slowly.
FIAT LUX: Let there be light.
FIDUS ACHATES: Faithful friend.
FLAGRANTE DELICTO: Caught in the
act.

HABEAS CORPUS: Common-law writ to
bring a person before a court or judge.

HIC JACET: Here lies. . . .
HOI POLLOI: The common people.
HONORIS CAUSA: For the sake of
honor.

HORS D'OEUVRES: Appetizers.
IN VINO VERITAS: In wine there is
truth.

IPSE DIXIT: An assertion made but not
proved.

IPSO FACTO: By the very fact.
JEUNESSE DOREE: Gilded youth.
LABOR OMNIA VINCIT: Work over-
comes all things.

LAISSEZ FAIRE: Noninterference.
MIRABILE DICTU: Wonderful to relate.
MULTUM IN PARVO: Much in little.
NIL ADMIRARI: To be astonished at
nothing.

NOLENS, VOLENS: Willy-nilly.
O TEMPORA! O MORES!: What sad
times and customs!

PERSONA GRATA: A favored person.
POST MORTEM: After death.
PRO BONO PUBLICO: For the public
welfare.

PRO TEMPORE: For the time being.
RARA AVIS: Extraordinary person or
thing.

REQUIESCAT IN PACE: Rest in peace.
SAVOIR FAIRE: Know-how; manners
for all occasions.

SINE DIE: With no day set for the next
meeting.

SINE QUA NON: Indispensable.
SPIRITUS FRUMENTI: Alcohol.
STATUS (IN) QUO: State in which any-
thing is.

SUI GENERIS: In a class by itself.
SURSUM CORDA: Lift up your hearts.
TEMPUS FUGIT: Time flies.
ULTIMA THULE: The limit in an ideal
way.

VAE VICTIS: Woe to the conquered.
VENI, VIDI, VICI: I came, I saw, I
conquered.

Greek and Roman Mythology

(Most of the Greek deities were adopted by the Romans, although in many cases there was a change of name. In the list below, information is given under the Greek name; the name in parentheses is the Latin equivalent. However, all Latin names are listed with cross references to the Greek ones. In addition, there are several deities which were exclusively Roman.)

ACHERON: *See* Rivers.

ACHILLES: Greek warrior; slew Hector at Troy; slain by Paris, who wounded him in his vulnerable heel.

ACTAEON: Hunter; surprised Artemis bathing; changed by her to stag and killed by his dogs.

ADMETUS: King of Thessaly; his wife, Alcestis, offered to die in his place.

ADONIS: Beautiful youth loved by Aphrodite.

AEACUS: One of three judges of dead in Hades; son of Zeus.

AETES: King of Colchis; father of Medea; keeper of Golden Fleece.

AEGEUS: Father of Theseus; believing Theseus killed in Crete, he drowned himself, Aegean Sea named for him.

AEGISTHUS: Son of Thyestes; slew Atreus; with Clytemnestra, his paramour, slew Agamemnon; slain by Orestes.

AEGYPTUS: Brother of Danaüs; his sons, except Lynceus, slain by Danaides.

AENEAS: Trojan; son of Anchises and Aphrodite; after fall of Troy, led his followers eventually to Italy; loved and deserted Dido.

AEOLUS: *See* Winds.

AESCLAPIUS: *See* Asclepius.

AESON: King of Ioclus; father of Jason; overthrown by his brother Pelias; restored to youth by Medea.

AETHER: Personification of sky.

AETHRA: Mother of Theseus.

AGAMEMNON: King of Mycenae; son of Atreus; brother of Menelaus; leader of Greeks against Troy; slain on his return home by Clytemnestra and Aegisthus.

AGLAIA: *See* Graces.

AJAX: Greek warrior; killed himself at Troy because Achilles' armor was awarded to Odysseus.

ALCESTIS: Wife of Admetus; offered to die in his place but saved from death by Hercules.

ALCMENE: Wife of Amphitryon; mother by Zeus of Hercules.

ALCYONE: *See* Pleiades.

ALECTO: *See* Furies.

ALECTRYON: Youth changed by Ares into cock.

ALTHAEA: Wife of Oeneus; mother of Meleager.

AMAZONS: Female warriors in Asia Minor; supported Troy against Greeks.

AMOR: *See* Eros.

AMPHION: Musician; husband of Niobe; charmed stones to build fortifications for Thebes.

AMPHITRITE: Sea goddess; wife of Poseidon.

AMPHITRYON: Husband of Alcmene.

ANCHISES: Father of Aeneas.

ANCILE: Sacred shield that fell from heavens; palladium of Rome.

ANDRAEMON: Husband of Dryope.

ANDROMACHE: Wife of Hector.

ANDROMEDA: Daughter of Cepheus; chained to cliff for monster to devour; rescued by Perseus.

ANTEIA: Wife of Proetus; tried to induce Bellerophon to elope with her.

ANTEROS: God who avenged unrequited love.

ANTIGONE: Daughter of Oedipus; accompanied him to Colonus; performed burial rite for Polynices and was buried alive.

ANTINOUS: Leader of suitors of Penelope; slain by Odysseus.

APHRODITE (VENUS): Goddess of love and beauty; daughter of Zeus; mother of Eros.

APOLLO: God of beauty, poetry, music; later identified with Helios as Phoebus Apollo; son of Zeus and Leto.

AQUILU: *See* Winds.

ARACHNE: Maiden who challenged Athena to weaving contest; changed to spider.

ARES (MARS): God of war; son of Zeus and Hera.

ARGO: Ship in which Jason and followers sailed to Colchis for Golden Fleece.

ARGUS: Monster with hundred eyes; slain by Hermes; his eyes placed by Hera into peacock's tail.

ARIADNE: Daughter of Minos; aided Theseus in slaying Minotaur; deserted by him on island of Naxos and married to Dionysus.

ARION: Musician; thrown overboard by pirates but saved by dolphin.

ARTEMIS (DIANA): Goddess of moon; huntress; twin sister of Apollo.

ASCLEPIUS (AESCLAPIUS): Mortal son of Apollo; slain by Zeus for raising dead; later deified as god of medicine. Also known as Asklepios.

ASTARTE: Phoenician goddess of love; variously identified with Aphrodite, Selene, and Artemis.

ASTRAEA: Goddess of Justice; daughter of Zeus and Themis.

ATALANTA: Princess who challenged her suitors to a foot race; Hippomenes won race and married her.

ATHENA (MINERVA): Goddess of wisdom; known poetically as Pallas Athene; sprang fully armed from head of Zeus.

ATLAS: Titan; held world on his shoulders as punishment for warring against Zeus; son of Iapetus.

ATREUS: King of Mycenae; father of Menelaus and Agamemnon; brother of Thyestes, three of whose sons he slew and served to him at banquet; slain by Aegisthus.

ATROPOS: *See* Fates.

AURORA: *See* Eos.

AUSTER: *See* Winds.

AVERNUS: Infernal regions; name derived from small vaporous lake near Vesuvius which was fabled to kill birds and vegetation.

BACCHUS: *See* Dionysus.

BELLEROPHON: Corinthian hero; killed Chimera with aid of Pegasus; tried to reach Olympus on Pegasus and was thrown to his death.

BELLONA: Roman goddess of war.

BOREAS: *See* Winds.

BRIAREUS: Monster of hundred hands; son of Uranus and Gaea.

BRISEIS: Captive maiden given to Achilles; taken by Agamemnon in exchange for loss of Chryseis, which caused Achilles to cease fighting, until death of Patroclus.

CADMUS: Brother of Europa; planter of dragon seeds from which first Thebans sprang.

CALLIOPE: *See* Muses.

CALYPSO: Sea nymph; kept Odysseus on her island Ogygia for seven years.

CASSANDRA: Daughter of Priam; prophetess who was never believed; slain with Agamemnon.

CASTOR: *See* Dioscuri.

CELAENO: *See* Pleiades.

CENTAURS: Beings half man and half horse; lived in mountains of Thessaly.

CEPHALUS: Hunter; accidentally killed his wife Procris with his spear.

CEPHEUS: King of Ethiopia; father of Andromeda.

CERBERUS: Three-headed dog guarding entrance to Hades.

CERES: *See* Demeter.

CHAOS: Formless void; personified as first of gods.

CHARON: Boatman on Styx who carried souls of dead to Hades; son of Erebus.

CHARYBDIS: Female monster; personification of whirlpool.

CHIMERA: Female monster with head of lion, body of goat, tail of serpent; killed by Bellerophon.

CHIRON: Most famous of centaurs.

CHRONOS: Personification of time.

CHRYSEIS: Captive maiden given to Agamemnon; his refusal to accept ransom from her father Chryses caused Apollo to send plague on Greeks besieging Troy.

CIRCE: Sorceress; daughter of Helios; changed Odysseus' men into swine.

CLIO: *See* Muses.

CLOTHO: *See* Fates.

CLYTEMNESTRA: Wife of Agamemnon, whom she slew with aid of her paramour, Aegisthus; slain by her son Orestes.

COCYTUS: *See* Rivers.

CREON: Father of Jocasta; forbade burial of Polynices; ordered burial alive of Antigone.

CREÜSA: Princess of Corinth, for whom Jason deserted Medea; slain by Medea, who sent her poisoned robe; also known as Glauke.

CREÜSA: Wife of Aeneas; died fleeing Troy.

CRONUS (SATURN): Titan; god of harvests; son of Uranus and Gaea; dethroned by his son Zeus.

CUPID: *See* Eros.

CYBELE: Anatolian nature goddess; adopted by Greeks and identified with Rhea.

CYCLOPES: Race of one-eyed giants (singular: Cyclops).

DAEDALUS: Athenian artificer; father of Icarus; builder of Labyrinth in Crete; devised wings attached with wax for him and Icarus to escape Crete.

DANAË: Princess of Argos; mother of Perseus by Zeus, who appeared to her in form of golden shower.

DANAÏDES: Daughters of Danaüs; at his command, all except Hypermnestra slew their husbands, the sons of Aegyptus.

DANAÜS: Brother of Aegyptus; father of Danaïdes; slain by Lynceus.

DAPHNE: Nymph; pursued by Apollo; changed to laurel tree.

DECUMA: *See* Fates.

DEINO: *See* Graeae.

DEMETER (CERES): Goddess of agriculture; mother of Persephone.

DIANA: *See* Artemis.

DIDO: Founder and queen of Carthage; stabbed herself when deserted by Aeneas.

DIOMEDES: Greek hero; with Odysseus, entered Troy and carried off Palladium, sacred statue of Athena.

DIOMEDES: Owner of man-eating horses, which Hercules, as ninth labor, carried off.

DIONE: Titan goddess; mother by Zeus of Aphrodite.

DIONYSUS (BACCHUS): God of wine; son of Zeus and Semele.

DIOSCURI: Twins Castor and Pollux; sons of Leda by Zeus.

DIS: See Hades.

DRYADS: Wood nymphs.

DRYOPE: Maiden changed to Hamadryad.

ECHO: Nymph who fell hopelessly in love with Narcissus; faded away except for her voice.

ELECTRA: Daughter of Agamemnon and Clytemnestra; sister of Orestes; urged Orestes to slay Clytemnestra and Aegisthus.

ELECTRA: See Pleiades.

ELYSIUM: Abode of blessed dead.

ENDYMION: Mortal loved by Selene.

ENYO: See Graeae.

EOS (AURORA): Goddess of dawn.

EPIMETHEUS: Brother of Prometheus; husband of Pandora.

ERATO: See Muses.

EREBUS: Spirit of darkness; son of Chaos.

ERINYES: See Furies.

ERIS: Goddess of discord.

EROS (AMOR or CUPID): God of love; son of Aphrodite.

ETEOCLES: Son of Oedipus, whom he succeeded to rule alternately with Polyneices; refused to give up throne at end of year; he and Polyneices slew each other.

EUMENIDES: See Furies.

EUPHROSYNE: See Graces.

EUROPA: Mortal loved by Zeus, who, in form of white bull, carried her off to Crete.

EURUS: See Winds.

EURYALE: See Gorgons.

EURYDICE: Nymph; wife of Orpheus.

EURYSTHEUS: King of Argos; imposed twelve labors on Hercules.

EUTERPE: See Muses.

FATES: Goddesses of destiny: Clotho (Spinner of thread of life), Lachesis (Determiner of length), and Atropos (Cutter of thread); also called Moirae. Identified by Romans with their goddesses of fate; Nona, Decuma, and Morta; called Parcae.

FAUNS: Roman deities of woods and groves.

FAUNUS: See Pan.

FAVONIUS: See Winds.

FLORA: Roman goddess of flowers.

FORTUNA: Roman goddess of fortune.

FURIES: Avenging spirits: Alecto, Megaera, and Tisiphone; known also as Erinyes or Eumenides.

GAEA: Goddess of earth; daughter of Chaos; mother of Titans; known also as Ge, Gea, Gala, etc.

GALATEA: Statue of maiden carved from ivory by Pygmalion; given life by Aphrodite.

GALATEA: Sea nymph; loved by Polyphemus.

GANYMEDE: Beautiful boy; successor to Hebe as cupbearer of gods.

GLAUCUS: Mortal who became sea divinity by eating magic grass.

GLAUKE: See Creüsa.

GOLDEN FLEECE: Fleece from ram that flew Phrixos to Colchis; Aëtes placed it under guard of dragon; carried off by Jason.

GORGONS: Female monsters: Euryale, Medusa, and Stheno; had snakes for hair; their glances turned mortals to stone. See Medusa.

GRACES: Beautiful goddesses: Aglaia (Brilliance), Euphrosyne (Joy), and Thalia (Bloom); daughters of Zeus.

GRAEAE: Sentinels for Gorgons: Deino, Enyo, and Pephredo; had one eye among them, which passed from one to another.

HADES (DIS): Name sometimes given Pluto; also, abode of dead, ruled by Pluto.

HAEMON: Son of Creon; promised husband of Antigone; killed himself in her tomb.

HAMADRYADS: Tree nymphs; lived and died with trees they inhabited.

HARPIES: Monsters with heads of women and bodies of birds.

HEBE (JUVENTAS): Goddess of youth; cupbearer of gods before Ganymede; daughter of Zeus and Hera.

HECATE: Goddess of sorcery and witchcraft.

HECTOR: Son of Priam; slayer of Patroclus; slain by Achilles.

HECUBA: Wife of Priam.

HELEN: Fairest woman in world; daughter of Zeus and Leda; wife of Menelaus; carried to Troy by Paris, causing Trojan War.

HELIADES: Daughters of Helios; mourned for Phaëthon and were changed to poplar trees.

HELIOS (SOL): God of sun; later identified with Phoebus Apollo.

HELLE: Sister of Phrixos; fell from ram of Golden Fleece; water where she fell named Hellespont.

HEPHAESTUS (VULCAN): God of fire; celestial blacksmith; son of Zeus and Hera; husband of Aphrodite.

HERA (JUNO): Queen of heaven; wife of Zeus.

HERCULES: Hero and strong man; son of Zeus and Alcmena; performed twelve

labors or deeds to be free from bondage under Eurystheus; after death, his mortal share was destroyed, and he became immortal. Also known as Herakles or Hercules. Labors: (1) killing Nemean lion; (2) killing Lernaean Hydra; (3) capturing Erymanthian boar; (4) capturing Cerynean hind; (5) killing man-eating Stymphalian birds; (6) procuring girdle of Hippolyte; (7) cleaning Augean stables; (8) capturing Cretan bull; (9) capturing man-eating horses of Diomedes; (10) capturing cattle of Geryon; (11) procuring golden apples of Hesperides; (12) bringing Cerberus up from Hades.

HERMES (MERCURY): God of physicians and thieves; messenger of gods; son of Zeus and Maia.

HERO: Priestess of Aphrodite; Leander swam Hellespont nightly to see her; drowned herself at his death.

HESPERUS: Evening star.

HESTIA (VESTA): Goddess of hearth; sister of Zeus.

HIPPOLYTE: Queen of Amazons; wife of Theseus.

HIPPOLYTUS: Son of Theseus and Hippolyte; falsely accused by Phaedra of trying to kidnap her; slain by Poseidon at request of Theseus.

HIPPOMENES: Husband of Atalanta, whom he beat in foot race by dropping golden apples, which she stopped to pick up.

HYACINTHUS: Beautiful youth accidentally killed by Apollo, who caused flower to spring up from his blood.

HYDRA: Nine-headed monster in marsh of Lerna; slain by Hercules.

HYGEIA: Personification of health.

HYMEN: God of marriage.

HYPERION: Titan; early sun god; father of Helios.

HYPERMNESTRA: Daughter of Danaüs; refused to kill her husband Lynceus.

HYPNOS (SOMNUS): God of sleep.

IAPETUS: Titan; father of Atlas, Epimetheus, and Prometheus.

ICARUS: Son of Daedalus; flew too near sun with wax-attached wings and fell into sea and was drowned.

IO: Mortal maiden loved by Zeus; changed by Hera into heifer.

IOBATES: King of Lycia; sent Bellerophon to slay Chimera.

IPHIGENIA: Daughter of Agamemnon; offered as sacrifice to Artemis at Aulis; carried by Artemis to Tauris where she became priestess; escaped from there with Orestes.

IRIS: Goddess of rainbow; messenger of Zeus and Hera.

ISMENE: Daughter of Oedipus; sister of Antigone.

IULUS: Son of Aeneas.

IXION: King of Lapithae; for making love to Hera he was bound to endlessly revolving wheel in Tartarus.

JANUS: Roman god of gates and doors; represented with two opposite faces.

JASON: Son of Aeson; to gain throne of Ioclus from Pelias, went to Colchis and brought back Golden Fleece; married Medea; deserted her for Creüsa.

JOCASTA: Wife of Laius; mother of Oedipus; unwittingly became wife of Oedipus; hanged herself when relationship was discovered.

JUNO: See Hera.

JUPITER: See Zeus.

JUVENTAS: See Hebe.

LACHESIS: See Fates.

LAIUS: Father of Oedipus, by whom he was slain.

LAOCOON: Priest of Apollo at Troy; warned against bringing wooden horse into Troy; destroyed with his two sons by serpents sent by Athena.

LARES: Roman ancestral spirits protecting descendants and homes.

LAVINIA: wife of Aeneas after defeat of Turnus.

LEANDER: Swam Hellespont nightly to see Hero; drowned in storm.

LEDA: Mortal loved by Zeus in form of Swan; mother of Helen, Clytemnestra, Dioscuri.

LETHE: See Rivers.

LETO (LATONA): Mother by Zeus of Artemis and Apollo.

LUCINA: Roman goddess of childbirth; identified with Juno.

LYNCEUS: Son of Aegyptus; husband of Hypermnestra; slew Danaüs.

MAIA: Daughter of Atlas; mother of Hermes.

MAIA: See Pleiades.

MANES: Souls of dead Romans, particularly of ancestors.

MARS: See Ares.

MARSYAS: Shepherd; challenged Apollo to music contest and lost; flayed alive by Apollo.

MEDEA: Sorceress; daughter of Aeëtes; helped Jason obtain Golden Fleece; when deserted by him for Creüsa, killed her children and Creüsa.

MEDUSA: Gorgon; slain by Perseus, who cut off her head.

MEGAERA: See Furies.

MELEAGER: Son of Althaea; his life would last as long as brand burning at his birth; Althaea quenched and saved it but destroyed it when Meleager slew his uncles.

MELPOMENE: See Muses.

MEMNON: Ethiopian king; made immortal by Zeus; son of Tithonus and Eos.

MENELAUS: King of Sparta; son of Atreus; brother of Agamemnon; husband of Helen.

MERCURY: *See* Hermes.

MEROPE: *See* Pleiades.

MEZENTIVS: Cruel Etruscan king; ally of Turnus against Aeneas; slain by Aeneas.

MIDAS: King of Phrygia; given gift of turning to gold all he touched.

MINERVA: *See* Athena.

MINOS: King of Crete; after death, one of three judges of dead in Hades; son of Zeus and Europa.

MINOTAUR: Monster, half man and half beast, kept in Labyrinth in Crete; slain by Theseus.

MNEMOSYNE: Goddess of memory; mother by Zeus of Muses.

MOIRAE: *See* Fates.

MOMUS: God of ridicule.

MORPHEUS: God of dreams.

MORS: *See* Thanatos.

MORTA: *See* Fates.

MUSES: Goddesses presiding over arts and sciences: Calliope (epic poetry), Clio (history), Erato (lyric and love poetry), Euterpe (music), Melpomene (tragedy), Polymnia or Polyhymnia (sacred poetry), Terpsichore (choral dance and song), Thalia (comedy and bucolic poetry), Urania (astronomy); daughters of Zeus and Mnemosyne.

NAIADS: Nymphs of waters, streams, and fountains.

NAPAEAE: Wood nymphs.

NARCISSUS: Beautiful youth loved by Echo; in punishment for not returning her love, he was made to fall in love with his image reflected in pool; pined away and became flower.

NEMESIS: Goddess of retribution.

NEOPTOLEMUS: Son of Achilles; slew Priam; also known as Pyrrhus.

NEPTUNE: *See* Poseidon.

NEREIDS: Sea nymphs; attendants on Poseidon.

NESTOR: King of Pylos; noted for wise counsel in expedition against Troy.

NIKE: Goddess of victory.

NIOBE: Daughter of Tantalus; wife of Amphion; her children slain by Apollo and Artemis; changed to stone but continued to weep her loss.

NONA: *See* Fates.

NOTUS: *See* Winds.

NOX: *See* Nyx.

NYMPHS: Beautiful maidens; inferior deities of nature.

NYX (NOX): Goddess of night.

OCEANIDS: Ocean nymphs; daughters of Oceanus.

OCEANUS: Eldest of Titans; god of waters.

ODYSSEUS (ULYSSES): King of Ithaca; husband of Penelope; wandered ten years after fall of Troy before arriving home.

OEDIPUS: King of Thebes; son of Laius and Jocasta; unwittingly murdered Laius and married Jocasta; tore his eyes out when relationship was discovered.

OENONE: Nymph of Mount Ida; wife of Paris, who abandoned her; refused to cure him when he was poisoned by arrow of Philoctetes at Troy.

OPS: *See* Rhea.

OREADS: Mountain nymphs.

ORESTES: Son of Agamemnon and Clytemnestra; brother of Electra; slew Clytemnestra and Aegisthus; pursued by Furies until his purification by Apollo.

ORION: Hunter; slain by Artemis and made heavenly constellation.

ORPHEUS: Famed musician; son of Apollo and Muse Calliope; husband of Eurydice.

PALES: Roman goddess of shepherds and herdsmen.

PALINURUS: Aeneas' pilot; fell overboard in his sleep and was drowned.

PAN (FAUNUS): God of woods and fields; part goat; son of Hermes.

PANDORA: Opener of box containing human ills; mortal wife of Epimetheus.

PARCAE: *See* Fates.

PARIS: Son of Priam; gave apple of discord to Aphrodite, for which she enabled him to carry off Helen; slew Achilles at Troy; slain by Philoctetes.

PATROCLUS: Great friend of Achilles; wore Achilles' armor and was slain by Hector.

PEGASUS: Winged horse that sprang from Medusa's body at her death; ridden by Bellerophon when he slew Chimera.

PELIAS: King of Ioclus; seized throne from his brother Aeson; sent Jason for Golden Fleece; slain unwittingly by his daughters at instigation of Medea.

PELOPS: Son of Tantalus; his father cooked and served him to gods; restored to life; Peloponnesus named for him.

PENATES: Roman household gods.

PENELOPE: Wife of Odysseus; waited faithfully for him for ten years while putting off numerous suitors.

PEPHREDO: *See* Graecae.

PERIPHETES: Giant; son of Hephaestus; slain by Theseus.

PERSEPHONE (PROSERPINE): Queen of infernal regions; daughter of Zeus and Demeter; wife of Pluto.

PERSEUS: Son of Zeus and Danaë; slew Medusa; rescued Andromeda from monster and married her.

PHAEDRA: Daughter of Minos; wife of Theseus; falsely accused Hippolytus of trying to kidnap her.

PHAËTHON: Son of Helios; drove his father's sun chariot and was struck down by Zeus before he set world on fire.

PHILOCTETES: Greek warrior who possessed Hercules' bow and arrows; slew Paris at Troy with poisoned arrow.

PHINEUS: Betrothed of Andromeda; tried to slay Perseus but turned to stone by Medusa's head.

PHLEGETHON: See Rivers.

PHOSPHOR: Morning star.

PHRIXOS: Brother of Helle; carried by ram of Golden Fleece to Colchis.

PIRITHOÛS: Son of Ixion; friend of Theseus; tried to carry off Persephone from Hades; bound to enchanted rock by Pluto.

PLEIADES: Alcyone, Celaeno, Electra, Maia, Merope, Sterope or Asterope, Taygeta; seven daughters of Atlas; transformed into heavenly constellation, of which six stars are visible (Merope is said to have hidden in shame for loving a mortal).

PLUTO (DIS): God of Hades; brother of Zeus.

PLUTUS: God of wealth.

POLLUX: See Dioscuri.

POLYMNIA: See Muses.

POLYNICES: Son of Oedipus; he and his brother Eteocles killed each other; burial rite, forbidden by Creon, performed by his sister Antigone.

POLYPHEMUS: Cyclops; devoured six of Odysseus' men; blinded by Odysseus.

POLYXENA: Daughter of Priam; betrothed to Achilles, whom Paris slew at their betrothal; sacrificed to shade of Achilles.

POMONA: Roman goddess of fruits.

PONTUS: Sea god; son of Gaea.

POSEIDON (NEPTUNE): God of sea; brother of Zeus.

PRIAM: King of Troy; husband of Hecuba; ransomed Hector's body from Achilles; slain by Neoptolemus.

PRIAPUS: God of regeneration.

PROCRIS: Wife of Cephalus, who accidentally slew her.

PROCRUSTES: Giant; stretched or cut off legs of victims to make them fit iron bed; slain by Theseus.

PROETUS: Husband of Antea; sent Belerophon to Iobates to be put to death.

PROTEUS: Sea god; assumed various shapes when called on to prophesy.

PSYCHE: Beloved of Eros; punished by jealous Aphrodite; made immortal and united with Eros.

PYGMALION: King of Cyprus; carved ivory statue of maiden which Aphrodite gave life as Galatea.

PYRAMUS: Babylonian youth; made love to Thisbe through hole in wall; thinking Thisbe slain by lion, killed himself.

PYRRHUS: See Neoptolemus.

PYTHON: Serpent born from slime left by Deluge; slain by Apollo.

QUIRINUS: Roman war god.

REMUS: Brother of Romulus; slain by him.

RHADAMANTHUS: One of three judges of dead in Hades; son of Zeus and Europa.

RHEA (OPS): Daughter of Uranus and Gaea; wife of Cronus; mother of Zeus; identified with Cybele.

RIVERS OF UNDERWORLD: Acheron (woe), Cocytus (walling), Lethe (forgetfulness), Phlegethon (fire), Styx (across which souls of dead were ferried by Charon).

ROMULUS: Founder of Rome; he and Remus suckled in infancy by she-wolf; slew Remus; deified by Romans.

SARPEDON: King of Lycia; son of Zeus and Europa; slain by Patroclus at Troy.

SATURN: See Cronus.

SATYRS: Hoofed demigods of woods and fields; companions of Dionysus.

SCIRON: Robber; forced strangers to wash his feet, then hurled them into sea where tortoise devoured them; slain by Theseus.

SCYLLA: Female monster inhabiting rock opposite Charybdis; menaced passing sailors.

SELENE: Goddess of moon.

SEMELE: Daughter of Cadmus; mother by Zeus of Dionysus; demanded Zeus appear before her in all his splendor and was destroyed by his lightnings.

SIBYLS: Various prophetesses; most famous, Cumaean sibyl, accompanied Aeneas into Hades.

SILEN: Minor woodland deities similar to satyrs (singular: silenus). Sometimes Silenus refers to eldest of satyrs, son of Hermes or of Pan.

SILVANUS: Roman god of woods and fields.

SINIS: Giant; bent pines, by which he hurled victims against side of mountain; slain by Theseus.

SIRENS: Minor deities who lured sailors to destruction with their singing.

SISYPHUS: King of Corinth; condemned in Tartarus to roll huge stone to top of hill; it always rolled back down again.

SOL: See Helios.

SOMNUS: See Hypnos.

SPHINX: Monster of Thebes; killed those who could not answer her riddle*; slain by Oedipus. Name also refers to other monsters having body of lion, wings, and head and bust of woman.

STEROPE: See Pleiades.

STHENO: See Gorgons.

STYX: See Rivers.

* What animal goes on 4 feet in morning, 2 at noon, 3 at night? Answer: Man (crawls when child, walks when adult, uses staff when old).

SYMPLEGADES: Clashing rocks at entrance to Black Sea; Argo passed through, causing them to become forever fixed.

SYRINX: Nymph pursued by Pan; changed to reeds, from which he made his pipes.

TANTALUS: Cruel king; father of Pelops and Niobe; condemned in Tartarus to stand chin-deep in lake surrounded by fruit branches; as he tried to eat or drink, water or fruit always receded.

TARTARUS: Underworld below Hades; often refers to Hades.

TAYGETA: *See* Pleiades.

TELEMACHUS: Son of Odysseus; made unsuccessful journey to find his father.

TELLUS: Roman goddess of earth.

TERMINUS: Roman god of boundaries and landmarks.

TERPSICHOE: *See* Muses.

TERRA: Roman earth goddess.

THALIA: *See* Graces; Muses.

THANATOS (MORS): God of death.

THEMIS: Titan goddess of laws of physical phenomena; daughter of Uranus; mother of Prometheus.

THESEUS: Son of Aegeus; slew Minotaur; married and deserted Ariadne; later married Phaedra.

THISBE: Beloved of Pyramus; killed herself at his death.

Norse Mythology

AESIR: Chief gods of Asgard.

ANDVARI: Dwarf; robbed of gold and magic ring by Loki.

ANGERBOTH (Angrbotha): Giantess; mother by Loki of Fenrir, Hel, and Midgard serpent.

ASGARD (Asgarth): Abode of gods.

ASK (Aske, Ask): First man; created by Odin, Hoenir, and Lothur.

ASYNJUR: Goddesses of Asgard.

ATLI: Second husband of Gudrun; invited Gunnar and Hogni to his court, where they were slain; slain by Gudrun.

AUDHUMLA (Audhumbla): Cow that nourished Ymir; created Buri by licking ice cliff.

BALDER (Baldr, Baldur): God of light, spring, peace, joy; son of Odin; slain by Hoth at instigation of Loki.

BIFROST: Rainbow bridge connecting Midgard and Asgard.

BRAGI (Brage): God of poetry; husband of Ithunn.

BRANSTOCK: Great oak in hall of Volungs; into it, Odin thrust Gram, which only Sigmund could draw forth.

BRYNHILD: Valkyrie; awakened from magic sleep by Sigurd; married Gunnar;

THYESTES: Brother of Atreus; Atreus killed three of his sons and served them to him at banquet.

TIRESIAS: Blind soothsayer of Thebes.

TISIPHONE: *See* Furies.

TITANS: Early gods from which Olympian gods were derived; children of Uranus and Gaea.

TITHONUS: Mortal loved by Eos; changed into grasshopper.

TRITON: Demigod of sea; son of Poseidon.

TURNUS: King of Rutuli in Italy; betrothed to Lavinia; slain by Aeneas.

ULYSSES: *See* Odysseus.

URANIA: *See* Muses.

URANUS: Personification of Heaven; husband of Gaea; father of Titans; dethroned by his son Cronus.

VENUS: *See* Aphrodite.

VERTUMNUS: Roman god of fruits and vegetables; husband of Pomona.

VESTA: *See* Hestia.

VULCAN: *See* Hephaestus.

WINDS: Aeolus (keeper of winds), Bo-reas (Aquilo) (north wind), Eurus (east wind), Notus (Auster) (south wind), Zephyrus (Favonius) (west wind).

ZEPHYRUS: *See* Winds.

ZEUS (JUPITER): Chief of Olympian gods; son of Cronus and Rhea; husband of Hera.

instigated death of Sigurd; killed herself and was burned on pyre beside Sigurd.

BUR (Bor): Son of Buri; father of Odin, Hoenir, and Lothur.

BURI (Borl): Progenitor of gods; father of Bur; created by Audhumla.

EMBLA: First woman; created by Odin, Hoenir, and Lothur.

FAFNIR: Son of Rodmar, whom he slew for gold in Otter's skin; in form of dragon, guarded gold; slain by Sigurd.

FENRIR: Wolf; offspring of Loki; swallows Odin at Ragnarok and is slain by Vitharr.

FORSETI: Son of Balder.

FREY (Freyr): God of fertility and crops; son of Njorth; originally one of Vanir.

FREYA (Freyja): Goddess of love and beauty; sister of Frey; originally one of Vanir.

FRIGG (Frigga): Goddess of sky; wife of Odin.

GARM: Watchdog of Hel; slays, and is slain by, Tyr at Ragnarok.

GIMLE: Home of blessed after Ragnarok.

GIUKI: King of Nibelungs; father of Gunnar, Hogni, Guttorm, and Gudrun.

GLATHSHEIM (Gladshheim): Hall of gods in Asgard.

GRAM (meaning "Angry"): Sigmund's sword; rewedded by Regin; used by Sigurd to slay Fafnir.

GREYFELL: Sigmund's horse; descended from Sleipnir.

GRIMHILD: Mother of Gudrun; administered magic potion to Sigurd which made him forget Brynhild.

GUÐRUN: Daughter of Giuki; wife of Sigurd; later wife of Atli and Jonakr.

GUNNAR: Son of Giuki; in his semblance Sigurd won Brynhild for him; slain at hall of Atli.

GUTTORM: Son of Giuki; slew Sigurd at Brynhild's request.

HEIMDALL (Heimdallr): Guardian of Asgard.

HEL: Goddess of dead and queen of underworld; daughter of Loki.

HIORDIS: Wife of Sigmund; mother of Sigurd.

HOENIR: One of creators of Ask and Embla; son of Bur.

HOGNI: Son of Giuki; slain at hall of Atli.

HOTH (Hoder, Hodur): Blind god of night and darkness; slayer of Balder at instigation of Loki.

ITHUNN (Ithun, Iduna): Keeper of golden apples of youth; wife of Bragi.

JONAKR: Third husband of Gudrun.

JORMUNREK: Slayer of Swanhild; slain by sons of Gudrun.

JOTUNNHEIM (Jotunheim): Abode of giants.

LIF and **LIFTHRASIR**: First man and woman after Ragnarok.

LOKI: God of evil and mischief; instigator of Balder's death.

LOTHUR (Lodur): One of creators of Ask and Embla.

MIDGARD (Midgarth): Abode of mankind; the earth.

MIDGARD SERPENT: Sea monster; offspring of Loki; slays, and is slain by, Thor at Ragnarok.

MIMIR: Giant; guardian of well in Jotunnheim at root of Yggdrasill; knower of past and future.

MJOLLNIR: Magic hammer of Thor.

NAGLFAR: Ship to be used by giants in attacking Asgard at Ragnarok; built from nails of dead men.

NANNA: Wife of Balder.

NIBELUNGS: Dwellers in northern kingdom ruled by Giuki.

NIFLHEIM (Nifelheim): Outer region of cold and darkness; abode of Hel.

NJORTH: Father of Frey and Freya; originally one of Vanir.

NORNS: Demigoddesses of fate: Urth (Urður) (Past), Verthandi (Verdandi) (Present), Skuld (Future).

ODIN (Othin): Head of Aesir; creator of world with Vili and Ve; equivalent to Woden (Wotan, Wotan) in Teutonic mythology.

OTTER: Son of Rodmar; slain by Loki; his skin filled with gold hoard of Andvari to appease Rodmar.

RAGNAROK: Final destruction of present world in battle between gods and giants; some minor gods will survive, and Lif and Lifthrasir will repeople world.

REGIN: Blacksmith; son of Rodmar; foster-father of Sigurd.

RERIR: King of Huns; son of Sigi.

RODMAR: Father of Regin, Otter, and Fafnir; demanded Otter's skin be filled with gold; slain by Fafnir, who stole gold.

SIF: Wife of Thor.

SIGGEIR: King of Goths; husband of Signy; he and his sons slew Volsung and his sons, except Sigmund; slain by Sigmund and Sinfiotli.

SIGI: King of Huns; son of Odin.

SIGMUND: Son of Volsung; brother of Signy, who bore him Sinfiotli; husband of Hiordis, who bore him Sigurd.

SIGNY: Daughter of Volsung; sister of Sigmund; wife of Siggeir; mother by Sigmund of Sinfiotli.

SIGURD: Son of Sigmund and Hiordis; awakened Brynhild from magic sleep; married Gudrun; slain by Guttorm at instigation of Brynhild.

SIGYN: Wife of Loki.

SINFIOTLI: Son of Sigmund and Signy.

SKULD: See Norns.

SLEIPNIR (Sleipner): Eight-legged horse of Odin.

SURT (Surtr): Fire demon; slays Frey at Ragnarok.

SVARTALFAHEIM: Abode of dwarfs.

SWANHILD: Daughter of Sigurd and Gudrun; slain by Jormunrek.

THOR: God of thunder; oldest son of Odin; equivalent to Germanic deity Donar.

TYR: God of war; son of Odin; equivalent to Tiu in Teutonic mythology.

ULL (Ullr): Son of Sif; stepson of Thor.

URTH: See Norns.

VALHALLA (Valhall): Great hall in Asgard where Odin received souls of heroes killed in battle.

VALI: Odin's son; Ragnarok survivor.

VALKYRIES: Virgins, messengers of Odin, who selected heroes to die in battle and took them to Valhalla; generally considered as nine in number.

VANIR: Early race of gods; three survivors, Njorth, Frey, and Freya, are associated with Aesir.

VE: Brother of Odin; one of creators of world.

VERTHANDI: See Norns.

VILI: Brother of Odin; one of creators of world.

VINGOLF: Abode of goddesses in Asgard.

VITHARR (Vithar): Son of Odin; survivor of Ragnarok.

VOLSUNG: Descendant of Odin, and

father of Signy, Sigmund; his descendants were called Volsungs.

YGGDRASIL: Giant ash tree springing from body of Ymir and supporting universe; its roots extended to Asgard, Jotunnheim, and Nifheim.

YMIR (Ymer): Primeval frost giant killed by Odin, Vili, and Ve; world created from his body; also, from his body sprang Yggdrasil.

Egyptian Mythology

AARU: Abode of the blessed dead.

AMEN (Amon, Ammon): One of chief Theban deities; united with sun god under form of Amen-Ra.

AMENTI: Region of dead where souls were judged by Osiris.

ANUBIS: Guide of souls to Amenti; son of Osiris; jackal-headed.

APIS: Sacred bull, an embodiment of Ptah; identified with Osiris as Osiris-Apis or Serapis.

GEB (Keb, Seb): Earth god; father of Osiris; represented with goose on head.

HATHOR (Athor): Goddess of love and mirth; cow-headed.

HORUS: God of day; son of Osiris and Isis; hawk-headed.

ISIS: Goddess of motherhood and fertility; sister and wife of Osiris.

KHEPERA: God of morning sun.

KHNEMU (Khnum, Chnuphis, Chnemu, Chnum): Ram-headed god.

KHONSU (Khensu, Khuns): Son of Amen and Mut.

MENTU (Ment): Solar deity, sometimes considered god of war; falcon-headed.

MIN (Khem, Chem): Principle of physical life.

MUT (Maut): Wife of Amen.

NEPHTHYS: Goddess of the dead; sister and wife of Set.

NU: Chaos from which world was created, personified as a god.

NUT: Goddess of heavens; consort of Geb.

OSIRIS: God of underworld and judge of dead; son of Geb and Nut.

PTAH (Phtha): Chief deity of Memphis.

RA: God of the Sun, the supreme god; son of Nut; Pharaohs claimed descent from him; represented as lion, cat, or falcon.

SERAPIS: God uniting attributes of Osiris and Apis.

SET (Seth): God of darkness or evil; brother and enemy of Osiris.

SHU: Solar deity; son of Ra and Hathor.

TEM (Atmu, Atum, Tum): Solar deity.

THOTH (Dhouti): God of wisdom and magic; scribe of gods; ibis-headed.

Rulers of England and Great Britain

Saxons¹

Name	Born	Ruled ²
Egbert ³	c. 775	828- 839
Ethelwulf	?	839- 858
Ethelbald	?	858- 860
Ethelbert	?	860- 866
Ethelred I	?	866- 871
Alfred the Great	849	871- 899
Edward the Elder	c. 870	899- 924
Aethelstan	895	924- 939
Edmund I the Deed-doer ..	921	939- 946
Edred	c. 925	946- 955
Edwy the Fair	c. 943	955- 959
Edgar the Peaceful	943	959- 975
Edward the Martyr	c. 962	975- 979
Ethelred II the Unready ..	c. 868	979-1016
Edmund II Ironside	c. 993	1016-1016

Danes

Canute	995	1016-1035
Harold I Harefoot	c.1016	1035-1040
Hardecanute	c.1018	1040-1042

Saxons

Edward the Confessor	c.1004	1042-1066
Harold II	c.1020	1066-1066

House of Normandy

Name	Born	Ruled ²
William I the Conqueror ..	1027	1066-1087
William II Rufus	c.1056	1087-1100
Henry I Beauclerc	1068	1100-1135
Stephen of Blois	c.1100	1135-1154

House of Plantagenet

Henry II	1133	1154-1189
Richard I Coeur de Lion ..	1157	1189-1199
John Lackland	1167	1199-1216
Henry III	1207	1216-1272
Edward I Longshanks	1239	1272-1307
Edward II	1284	1307-1327
Edward III	1312	1327-1377
Richard II	1367	1377-1399 ⁴

House of Lancaster

Henry IV Bolingbroke ...	1367	1399-1413
Henry V	1387	1413-1422
Henry VI	1421	1422-1461 ¹³

House of York

Edward IV	1442	1461-1483 ¹³
Edward V	1470	1483-1483
Richard III	1452	1483-1485

House of Tudor		
Name	Born	Ruled ¹
Henry VII	1457	1485-1509
Henry VIII	1491	1509-1547
Edward VI	1537	1547-1553
Jane (Lady Jane Grey) ² ..	1537	1553-1553
Mary I ("Bloody Mary") ..	1516	1553-1558
Elizabeth I	1533	1558-1603

House of Stuart		
James I ³	1566	1603-1625
Charles I	1600	1625-1649

Commonwealth		
Council of State		1649-1653
Oliver Cromwell ⁴	1599	1653-1658
Richard Cromwell ⁵	1626	1658-1659 ⁶

Restoration of House of Stuart		
Charles II	1630	1660-1685
James II	1633	1685-1688 ⁹

¹ Dates for Saxon Kings are still subjects of controversy. ² Year of end of rule is also that of death, unless otherwise indicated. ³ Became King of West Saxons in 802; considered (from 823) first King of all England. ⁴ Died 1400. ⁵ Nominal Queen for 9 days; not counted as Queen by some authorities. She was beheaded in 1554.

Restoration of House of Stuart (cont'd)		
Name	Born	Ruled ²
William III ¹⁰	1650	1689-1702
Mary II ¹⁰	1662	1689-1694
Anne	1665	1702-1714
House of Hanover		
George I	1660	1714-1727
George II	1683	1727-1760
George III	1738	1760-1820
George IV	1762	1820-1830
William IV	1765	1830-1837
Victoria	1819	1837-1901

House of Saxe-Coburg ¹¹		
Edward VII	1841	1901-1910

House of Windsor ¹¹		
George V	1865	1910-1936
Edward VIII	1894	1936-1936 ¹²
George VI	1895	1936-1952
Elizabeth II	1926	1952-

⁶ Ruled in Scotland as James VI (1567-1625). ⁷ Lord Protector. ⁸ Died 1712. ⁹ Died 1701. ¹⁰ Joint rulers 1689-1694. ¹¹ Name changed from Saxe-Coburg to Windsor in 1917. ¹² Has been known since his abdication as the Duke of Windsor. ¹³ Henry VI reigned again briefly 1470-71.

British Prime Ministers Since 1770

Name	Term
Lord North (Tory)	1770-1782
Marquis of Rockingham (Whig) ..	1782-1782
Earl of Shelburne (Whig)	1782-1783
Duke of Portland (Coalition) ...	1783-1783
William Pitt, the Younger (Tory)	1783-1801
Henry Addington (Tory)	1801-1804
William Pitt, the Younger (Tory)	1804-1806
Baron Grenville (Whig)	1806-1807
Duke of Portland (Tory)	1807-1809
Spencer Perceval (Tory)	1809-1812
Earl of Liverpool (Tory)	1812-1827
George Canning (Tory)	1827-1827
Viscount Goderich (Tory)	1827-1828
Duke of Wellington (Tory)	1828-1830
Earl Grey (Whig)	1830-1834
Viscount Melbourne (Whig)	1834-1834
Sir Robert Peel (Tory)	1834-1835
Viscount Melbourne (Whig)	1835-1841
Sir Robert Peel (Tory)	1841-1846
Earl Russell (Whig)	1846-1852
Earl of Derby (Tory)	1852-1852
Earl of Aberdeen (Coalition) ...	1852-1855
Viscount Palmerston (Liberal) ...	1855-1858
Earl of Derby (Conservative) ...	1858-1859
Viscount Palmerston (Liberal) ...	1859-1865
Earl Russell (Liberal)	1865-1866
Earl of Derby (Conservative) ...	1866-1868
Benjamin Disraeli (Conservative)	1868-1868
William E. Gladstone (Liberal) ..	1868-1874
Benjamin Disraeli (Conservative)	1874-1880
William E. Gladstone (Liberal) ..	1880-1885

Name	Term
Marquis of Salisbury	
(Conservative)	1885-1886
William E. Gladstone (Liberal) ...	1886-1886
Marquis of Salisbury	
(Conservative)	1886-1892
William E. Gladstone (Liberal) ...	1892-1894
Earl of Rosebery (Liberal)	1894-1895
Marquis of Salisbury	
(Conservative)	1895-1902
Earl Balfour (Conservative)	1902-1905
Sir H. Campbell-Bannerman	
(Liberal)	1905-1908
Herbert H. Asquith (Liberal)	1908-1915
Herbert H. Asquith (Coalition) ..	1915-1916
David Lloyd George (Coalition) ...	1916-1922
Andrew Bonar Law (Conservative)	1922-1923
Stanley Baldwin (Conservative) ..	1923-1924
James Ramsay MacDonald	
(Labour)	1924-1924
Stanley Baldwin (Conservative) ..	1924-1929
James Ramsay MacDonald	
(Labour)	1929-1931
James Ramsay MacDonald	
(Coalition)	1931-1935
Stanley Baldwin (Coalition)	1935-1937
Neville Chamberlain (Coalition) ..	1937-1940
Winston Churchill (Coalition) ...	1940-1945
Clement R. Attlee (Labour)	1945-1951
Sir Winston Churchill	
(Conservative)	1951-1955
Sir Anthony Eden (Conservative) ...	1955-1957
Harold Macmillan (Conservative) .	1957-

Birthstones

Source: Jewelry Industry Council.

January	Garnet
February	Amethyst
March	Aquamarine or Bloodstone
April	Diamond
May	Emerald
June	Pearl, Alexandrite or Moonstone

July	Ruby
August	Peridot or Sardonyx
September	Sapphire
October	Opal or Tourmaline
November	Topaz
December	Turquoise or Zircon

Rulers of France

Carolingian Dynasty

Name	Born	Ruled ¹
Pepin the Short	c. 714	751-768
Charlemagne ²	742	768-814
Louis I the Debonair ³	778	814-840
Charles I the Bald ⁴	823	840-877
Louis II the Stammerer	846	877-879
Louis III ⁵	c. 863	879-882
Carloman ⁶	?	879-884
Charles II the Fat ⁶	839	884-887 ⁷
Eudes (Odo), Count of Paris	?	888-898
Charles III the Simple ⁸	879	893-923 ⁹
Robert I ¹⁰	c. 865	922-923
Rudolf (Raoul), Duke of Burgundy	?	926-936
Louis IV d'Outremer	c. 921	936-954
Lothair	941	954-986
Louis V the Sluggard	c. 967	986-987

Capetian Dynasty

Hugh Capet	c. 940	987-996
Robert II the Pious ¹¹	c. 970	996-1031
Henry I	1008	1031-1060
Philip I	1052	1060-1108
Louis VI the Fat	1081	1108-1137
Louis VII the Young	c. 1121	1137-1180
Philip II (Philip Augustus)	1165	1180-1223
Louis VIII the Lion	1187	1223-1226
Louis IX (St. Louis)	1214	1226-1270
Philip III the Bold	1245	1270-1285
Philip IV the Fair	1268	1285-1314
Louis X the Quarreler	1289	1314-1316
John I	1316	1316-1316
Philip V the Tall	1294	1316-1322
Charles IV the Fair	1294	1322-1328

House of Valois

Philip VI	1293	1328-1350
John II the Good	1319	1350-1364
Charles V the Wise	1327	1364-1380
Charles VI the Well-Beloved	1368	1380-1422
Charles VII	1403	1422-1461
Louis XI	1423	1461-1483
Charles VIII	1470	1483-1498
Louis XII the Father of the People	1462	1498-1515
Francis I	1494	1515-1547
Henry II	1519	1547-1559
Francis II	1544	1559-1560
Charles IX	1550	1560-1574
Henry III	1551	1574-1589

House of Bourbon

Henry IV of Navarre	1553	1589-1610
Louis XIII	1601	1610-1643
Louis XIV the Great	1638	1643-1715
Louis XV the Well-Beloved	1710	1715-1774

House of Bourbon (cont'd)

Name	Born	Ruled ¹
Louis XVI	1754	1774-1792 ¹²
Louis XVII (Louis Charles de France) ¹³	1785	1793-1795

First Republic

National Convention	....	1792-1795
Directory (Directoire)	1795-1799

Consulate

Napoleon Bonaparte ¹⁴	1769	1799-1804
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First Empire

Napoleon I	1769	1804-1815 ¹⁵
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Restoration of House of Bourbon

Louis XVIII le Désiré	1755	1814-1824
Charles X	1757	1824-1830 ¹⁶

Bourbon-Orleans line

Louis Philippe ("Citizen King")	1773	1830-1848 ¹⁷
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Second Republic

Louis Napoleon ¹⁸	1808	1848-1852
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Second Empire

Napoleon III (Louis Napoleon)	1808	1852-1871 ¹⁹
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Third Republic

Louis Adolphe Thiers ²⁰	1797	1871-1873 ²¹
Marie E. P. M. de MacMahon ²⁰	1808	1873-1879 ²²
François P. J. Grévy ²⁰	1807	1879-1887 ²³
Sadi Carnot ²⁰	1837	1887-1894
Jean Casimir-Périer ²⁰	1847	1894-1895 ²⁴
François Félix Faure ²⁰	1841	1895-1899
Émile Loubet ²⁰	1838	1899-1906 ²⁵
Clement Armand Fallières ²⁰	1841	1906-1913 ²⁶
Raymond Poincaré ²⁰	1860	1913-1920 ²⁷
Paul E. L. Deschanel ²⁰	1856	1920-1920 ²⁸
Alexandre Millerand ²⁰	1859	1920-1924 ²⁹
Gaston Doumergue ²⁰	1863	1924-1931 ³⁰
Paul Doumer ²⁰	1857	1931-1932
Albert Lebrun ²⁰	1871	1932-1940 ³¹

Vichy Government

Henri Philippe Pétain ³²	1856	1940-1944 ³³
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Provisional Government

Charles de Gaulle ³⁴	1890	1944-1946 ³⁵
Félix Gouin ³⁴	1884	1946-1946 ³⁵
Georges Bidault ³⁴	1899	1946-1947 ³⁵

Fourth Republic

Vincent Auriol ³⁰	1884	1947-1954 ³⁵
René Coty ³⁰	1882	1954-1959 ³⁵

Fifth Republic

Charles de Gaulle ³⁰	1890	1959-
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¹ Year of end of rule is also that of death, unless otherwise indicated. ² Crowned Emperor of the West in 800. ³ Holy Roman Emperor 814-840. ⁴ Holy Roman Emperor 875-877 as Charles II. ⁵ Ruled jointly 879-882. ⁶ Holy Roman Emperor 881-887 as Charles III. ⁷ Died 888. ⁸ King 893-898 in opposition to Eudes. ⁹ Died 928. ¹⁰ Not counted in regular line of Kings of France by some authorities. Elected by nobles but killed in Battle of Soissons. ¹¹ Sometimes called Robert I. ¹² Executed 1793. ¹³ Titular King only. He died in prison according to official reports, but many pretenders appeared during the Bourbon restoration. ¹⁴ As First Consul, Napoleon

held the power of government. In 1804, he became Emperor. ¹⁵ Abdicated first time June 1814. Re-entered Paris Mar. 1815, after escape from Elba; Louis XVIII fled to Ghent. Abdicated second time June 1815. He named as his successor his son, Napoleon II, who was not acceptable to the Allies. He died 1821. ¹⁶ Died 1836. ¹⁷ Died 1850. ¹⁸ President; became Emperor in 1852. ¹⁹ Died 1873. ²⁰ President. ²¹ Died 1877. ²² Died 1893. ²³ Died 1891. ²⁴ Died 1907. ²⁵ Died 1929. ²⁶ Died 1931. ²⁷ Died 1934. ²⁸ Died 1922. ²⁹ Died 1942. ³⁰ Died 1937. ³¹ Died 1950. ³² Chief of State. ³³ Died 1951. ³⁴ Interim President. ³⁵ Still alive.

Rulers of Germany and Prussia

Kings of Prussia

Name	Born	Ruled ¹
Frederick I ²	1657	1701-1713
Frederick William I	1688	1713-1740
Frederick II the Great	1712	1740-1786
Frederick William II	1744	1786-1797
Frederick William III	1770	1797-1840
Frederick William IV	1795	1840-1861
William I	1797	1861-1871 ³

Emperors of Germany

William I	1797	1871-1888
Frederick III	1831	1888-1888
William II	1859	1888-1918 ⁴

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Was Elector of Brandenburg (1688-1701) as Frederick III. ³ Became Emperor of Germany

Heads of the Reich

Name	Born	Ruled ¹
Friedrich Ebert ⁵	1871	1919-1925
Paul von Hindenburg ⁵	1847	1925-1934
Adolf Hitler ^{6,7}	1889	1934-1945
Karl Doenitz ⁶	1891	1945-1945 ⁸

German Federal Republic (Western)

Theodor Heuss ⁵	1884	1949-1959 ⁹
Heinrich Lübke ⁵	1895	1959-

German Democratic Republic (Eastern)

Wilhelm Pieck ⁵	1876	1949-
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In 1871. ⁴ Died 1941. ⁵ President. ⁶ Führer. ⁷ Named Chancellor by President Hindenburg in 1933. ⁸ Still alive.

Rulers of Russia Since 1533

Name	Born	Ruled ¹
Ivan IV the Terrible	1530	1533-1584
Theodore I	1557	1584-1598
Boris Godunov	c.1551	1598-1605
Theodore II	1589	1605-1605
Demetrius I ²	?	1605-1606
Basil IV Shuiski	?	1606-1610 ³
"Time of Troubles"		1610-1613
Michael Romanov	1596	1613-1645
Alexis I	1629	1645-1676
Theodore III	1656	1676-1682
Ivan V ⁴	1666	1682-1689 ⁵
Peter I the Great ⁴	1672	1682-1725
Catherine I	c.1684	1725-1727
Peter II	1715	1727-1730
Anna	1693	1730-1740
Ivan VI	1740	1740-1741 ⁶
Elizabeth	1709	1741-1762
Peter III	1728	1762-1762

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Also known as Pseudo-Demetrius. ³ Died 1612. ⁴ Ruled jointly until 1689, when Ivan was

Name	Born	Ruled ¹
Catherine II the Great	1729	1762-1796
Paul I	1754	1796-1801
Alexander I	1777	1801-1825
Nicholas I	1796	1825-1855
Alexander II	1818	1855-1881
Alexander III	1845	1881-1894
Nicholas II	1868	1894-1917 ⁷

Provisional Government

Prince Georgi Lvov ⁸	1861	1917-1917 ⁹
Alexander Kerensky ⁸	1881	1917-1917 ¹⁰

U.S.S.R.

Nikolai Lenin ⁸	1870	1917-1924
Joseph Stalin ¹¹	1879	1924-1953
Georgi M. Malenkov ⁸	1902	1953-1955 ¹⁰
Nikolai A. Bulganin ⁸	1895	1955-1958 ¹⁰
Nikita S. Khrushchev ⁸	1894	1958-

deposed. ⁵ Died 1696. ⁶ Died 1764. ⁷ Killed 1918. ⁸ Premier. ⁹ Died 1925. ¹⁰ Still alive. ¹¹ General Secretary of Communist party; Premier 1941-53.

Animal Names: Male, Female and Young

Source: Grace Davall, N.Y. Zoological Society.

Animal	Male	Female	Young	Animal	Male	Female	Young
Ass	Jack	Jenny	Colt	Goose	Gander	Goose	Gosling
Bear	He-bear	She-bear	Cub	Horse	Stallion	Mare	Foal
Cat	Tom	Tabby ¹	Kitten	Lion	Lion	Lioness	Cub
Cattle	Bull	Cow	Calf	Rabbit	Buck	Doe	.....
Chicken	Rooster	Hen	Chick	Sheep	Ram	Ewe	Lamb
Deer	Buck	Doe	Fawn	Swan	Cob	Pen	Cygnets
Dog	Dog	Bitch	Pup	Swine	Boar	Sow	Shoat ²
Duck	Drake	Duck	Duckling	Tiger	Tiger	Tigress	Cub
Elephant	Bull	Cow	Calf	Whale	Bull	Cow	Calf
Fox	Dog	Vixen	Cub	Wolf	Dog	Bitch	Cub ³

¹ Or queen. ² Or piglet. ³ Or pup or whelp.

Mason and Dixon's Line

Mason and Dixon's Line (often called the Mason-Dixon Line) is the boundary between Pennsylvania and Maryland, running at a north latitude of 39°43'19.11". The greater part of it was surveyed from 1763-67 by Charles Mason and Jeremiah

Dixon, English astronomers who had been appointed to settle a dispute between the colonies. As the line was partly the boundary between the free and the slave states, it has come to signify the division between the North and the South.

WORD SECTION

New and Newly Important Words and Meanings
Words Frequently Misspelled . . . Forms of Address

Prepared by

G. & C. MERRIAM CO., Springfield, Mass.

Publishers of

Webster's New International Dictionary, Second Edition
Webster's New Collegiate Dictionary

New and Newly Important Words and Meanings

Note: This is a selected list of words, from a wide variety of subject areas, that have become of fairly recent general interest. Many, as *radar*, *colorcast*, and *dynel*, are new in the sense that they were recently introduced into the language. Some, as *omnibus*, *libretto*, and *alligator*, are recently acquired new or extended senses of well-established terms. Others, as *rocket ship*, *snollygoster* and *fission*, are terms that have been in limited use within certain circles for a considerable time but have only recently become generally used and known. It would be out of keeping with the spirit of a list like this and beyond the space available to treat the entries in formal dictionary fashion. In general, only the commonest spellings and the most basic and important of the new senses have been given.

- ABSTRACT:** Characterized by designs in which an artist, using lines or blocks of color rather than pictures of actual objects, attempts to set forth his feelings or ideas.
- ACETATE RAYON:** A rayon fiber made with cellulose acetate.
- ACK-ACK:** An anti-aircraft gun; also, the fire of such a gun.
- ACRONYM:** A word formed from the initial letters or the first and last syllables of the words in a compound (*jato* from *jet* assisted take-off; *motel* from *motorists' hotel*).
- ACTH:** A compound obtained from the pituitary gland, used especially in the treatment of arthritis.
- ACTIONOMYCIN:** An antibiotic isolated from certain soil bacteria.
- ADDITIVE:** Any substance which, when added to another product, such as gasoline or a storage battery, is supposed to make it more powerful or longer-lasting.
- AEROEMBOLISM:** An abnormal bodily condition, called also *air bends*, due to the formation of nitrogen bubbles in the blood and spinal fluid brought about by rapid ascent into high altitudes.
- AGITPROP:** Serving as a means for spreading propaganda intended to promote militancy among the common people;—applied originally to pro-Communist activities.
- AIRLIFT:** A supply line operated by aircraft.
- AIRSTRIP:** A hard-surfaced runway for the take-off and landing of aircraft; also, a portable runway made of steel sheets.
- ALCOMETER:** A device for detecting drunkenness by measuring the amount of alcohol in a sample of exhaled air.
- ALERT:** A signal to warn of danger, as from hostile aircraft; also, the period of time in which the signal is in effect.
- ALLIGATOR:** A flat-bottomed, armored military vehicle for use on land or water.
- ALL-OUT:** Making use of all available power and resources (as, an *all-out* effort).
- AMPLITUDE MODULATION or AM:** A system of radio broadcasting in which the amplitude of the carrier wave is modulated in accordance with the form of the sound or signal wave.
- AMTRAC:** An amphibious tractor, used chiefly as a military vehicle.
- ANGLE:** A special approach or technique for achieving an end, as for writing a news story or promoting an interest.
- ANTIBIOTIC:** A substance produced by a living organism, especially by a bacterium or fungus, that is used to kill or stop the growth of disease germs.
- ANTIHISTAMINE:** An agent used in the prevention or treatment of allergic reactions.
- AQUACADE:** An elaborate water show consisting of exhibitions of swimming, diving, and acrobatics, accompanied by music.
- ARENA THEATER = THEATRE-IN-THE-ROUND.**
- ARTIFICIAL INSEMINATION:** Introduction of semen into the genital tract of a female animal by other than the natural means.
- ASTRODOME:** A transparent dome on the upper surface of an airplane from which the navigator makes celestial observations.
- ATEBRIN:** An antimalarial drug, quinacrine dihydrochloride.
- ATOMIC BOMB, ATOM BOMB, or A-BOMB:** A bomb with violent explosive power that is due to a sudden release of atomic energy.
- ATOMIC COCKTAIL:** A radioactive substance such as sodium iodide, dissolved in water and given as a drink to cancer patients.
- AUDIO:** Pertaining to or used in the transmission or reception of sound in TV.

AUDIOPHILE: One who is enthusiastic about sound, especially music from high-fidelity broadcasts or recordings.

AUDIOVISUAL: Involving both hearing and seeing (as, *audiovisual* education uses films, slides, phonograph records, and the like, to supplement instruction).

AUREOMYCIN: An antibiotic isolated from a soil microorganism.

AUSTERITY: A severe or enforced economy characterized by a lack of luxuries (as, postwar *austerity* in Great Britain).

AUTOMATIC TRANSMISSION: Automotive transmission in which the gears are shifted automatically.

AUTOMATION: The substitution of machines or mechanical devices for human beings in a manufacturing process.

BABUSHKA: A triangular kerchief worn over the head and tied under the chin.

BABY SITTER: One who is hired, usually for a few hours, to care for children while the parents are absent from the home.

BALL-POINT PEN: A fountain pen in which the writing point is a tiny ball that rotates freely against an inking magazine.

BAMBOO CURTAIN: The military, political, and propaganda barrier isolating territory controlled by the Chinese Communists.

BANK: A place for storing a reserve supply;—occurs in such combinations as *blood bank*, *eye bank*, *bone bank*, *skin bank*.

BANKROLLER: One having a sizable bankroll or a ready and ample supply of funds.

BARBITURATE: One of a large group of drugs often used as sedatives or antispasmodics.

BARREL: To move at a high speed in a straight course;—used especially of vehicles.

BASIC ENGLISH: A copyrighted system intended to simplify the learning of English by the use of a vocabulary limited to the 850 most essential words.

BATHYTHERMOGRAPH: An instrument for recording the temperature variations of sea or fresh water according to depth.

BAZOOKA: A portable rocket-launcher, used chiefly as an antitank weapon.

BEACHHEAD: An area on an enemy shore which an advance force occupies and defends.

BEAM: A directional radio signal for guiding aircraft, audible as a continuous tone as long as the aircraft stays on course, but as a broken tone if it veers to the left or right.

BEBOP: A style of jazz with many notes to the measure, usually played loud and fast and characterized by changing of key and accenting of odd beats.

BELLYLAND: To land an airplane on the under side of its fuselage without using the landing gear.

BENTHOSCOPE: A steel sphere used for deep-sea diving and observation.

BETATRON: An apparatus in which electrons are accelerated to high speed and formed into beta rays for use in generating high-voltage X-rays or for nuclear bombardment.

BIG WHEEL, slang: An important, impressive person; sometimes one who only feels himself important.

BIKINI: A woman's two-piece bathing suit of abbreviated style.

BINAURAL SOUND: Sound recorded or transmitted by pairs of equipment in order to give the listener the effect of having heard the original with his own two ears.

BIOLOGICAL WARFARE: Warfare in which living organisms, especially disease germs, are used against human, animal, and plant life; also, warfare involving the use of synthetic chemicals against plants.

BIRD, slang: An enthusiast (as, a *bird* about music); also, any person thought to be odd or strange.

BITCH, slang: To gripe; to complain.

BLACK MARKET: Trade in violation of official controls or restrictions, especially those concerning price ceilings, rationing, and priorities; also, a market or group carrying on such trade.

BLISTER: A compartment, often covered by a transparent dome; that protrudes from the fuselage of an aircraft and is usually occupied by a gunner or observer.

BLITZ: A violent, swift military attack; also, any sudden, overpowering attack;—short for *blitzkrieg*.

BLOCKBUSTER: A huge, high-explosive demolition bomb, usually one weighing two, four, or six tons.

BLOODMOBILE: An automobile equipped for collecting blood from volunteer donors.

BLUEPRINT: A detailed plan for a project or program of action (as, a *blueprint* for mobilization).

BLUE RIBBON JURY: A panel of jurors selected for qualifications such as education or property ownership, that may be called to sit in complicated cases.

BOBBY SOCK: A girl's sock reaching above the ankle.

BOBBY SOXER: A young girl, especially one in the early teens;—from the wearing of bobby socks.

BOMB: A small container in which a liquid, as an insecticide, is held under pressure and released as a spray.

BOOBY TRAP: An explosive device concealed and attached to some harmless-looking object; also, any trap for the unsuspecting.

BOOGIE-WOOGIE: A style of playing blues on the piano, characterized by a persistent bass rhythm and elaborate treatments of a simple melody, often in contrary motion to the bass.

BOOKBURNING: Systematic destruction, usually by a government, of books believed to contain dangerous ideas; hence, the suppression of ideas.

BOOKMOBILE: A closed autotruck with shelves of books, which serves as a traveling library or bookstore.

BOOSTER: A device for strengthening radio or television signals in areas where the reception is weak.

BOP: Short for *bebop*; also, one fond of bebop.

BOTTLENECK: To delay progress; to hold up a process, especially at a critical point.

BOYS' TOWN: A farm or school for homeless or delinquent boys, organized like a town and governed by the boys themselves.

BRAINWASHING: The forcible replacement of one set of political ideas by another set, especially through indoctrination or mental torture.

BRASS: Military and naval officers of high rank or position, especially those in top commands.

BREAK: A short rest period, often one set aside from the working day.

BRIEF: To give final, last-minute instructions or information (as, to *brief* the crew of a bomber before a mission).

BROWNOUT: A dimming of street lights and various other outdoor lighting, chiefly to conserve fuel supplies.

BRUSHOFF: A curt or offhand dismissal (as, to give someone the *brushoff*).

BUDGIE: Short for *budgerigar*, the zebra parakeet.

BUILD-UP: Extremely favorable notice, as by the press or radio, designed to popularize a product, personality, or organization.

BUILT-IN: Functioning as a part of, but separately identifiable from, a given unit (as, *built-in* shelves); also, conditioned (as, a *built-in* reaction).

BULLDOZER: A tractor-driven machine with a broad, blunt horizontal blade or ram, used especially in road building and clearing land.

BUMP: To push (a person) out of his place in order to take it for oneself (as, to *bump* a man from his job).

BURGER: A sandwich usually made of a flat roll cut in half and filled either with hamburger or another food specified (as, *pork-burger* or *beefburger*).

BURP GUN: A machine pistol.

BUTADIENE: A colorless gas, made from petroleum and alcohol, used in the making of synthetic rubber.

BUY, slang: To accept; to agree to; to assent (as, to *buy* an idea or an argument).

BUZZ: To fly an airplane fast and at a low altitude over (as, to *buzz* an airfield).

CABANA: A beach shelter resembling a cabin, usually with an open side facing the sea.

CADRE: A nucleus of thoroughly indoctrinated leaders who actively promote the interests of a communist or revolutionary party.

CAFÉ CURTAINS: Plain, straight-hanging curtains, usually hung on poles by loops or rings, used to cover the lower part of a window or door.

CAFÉ SOCIETY: People who frequent fashionable cafés and night clubs.

CALYPSO: A ballad in African rhythm, often a parody or a satire on current events, sung especially by natives of the British West Indies as part of a pre-Lenten carnival.

CANDID CAMERA: A camera, usually a small one with a fast lens, used for taking unposed, informal pictures, usually without the subject's knowledge.

CANNIBALIZE: To dismantle a machine in order to get parts for use as replacements in other machines.

CAPSULE: Of a small type or in a condensed or streamlined form (as, a *capsule* review, criticism, or submarine).

CAPTIVE AUDIENCE: An audience obliged to stay within hearing of a speech or broadcast, often being subjected to advertising or propaganda.

CARD-CARRYING MEMBER: A Communist to whom a party membership card has been issued and who presumably carries it on his person.

CARHOP: A waiter or waitress at a drive-in restaurant who serves food and drinks to customers in their parked cars.

CARPORT: A roofed shelter for an automobile, usually attached to another building, and with two or more open sides.

CARTRIDGE: A removable pickup in the tone arm of a phonograph.

CASUAL: Of clothing, designed in a simple, easy style suitable for informal or sports events.

CEILING: A maximum, as for a price, wage, fee, or rent, which is fixed as the upper legal limit by government authority, usually on the basis of the level prevailing at a certain date.

CERAMAL = CERMET.

CERMET: A strong, heat-resistant metallic alloy.

CHAIN REACTION: In chemistry and physics, a process which can continue itself because one of its resulting products is always able to start the process anew until the original material is used up.

CHALKBOARD: A smooth flat surface, often of slate or composition, for writing on with chalk.

CHALKTALK: A talk or lecture which the speaker illustrates by making drawings or cartoons as he talks.

CHANNEL: A narrow band of frequencies on which a radio or television program may be transmitted.

CHARACTER ASSASSINATION: The attempt to discredit or destroy the reputation of another person, often by making vague, unproved accusations.

CHEAP: Having a depreciated purchasing power or value, especially as the result of a currency inflation (as, *cheap* dollars).

CHEESECAKE: Photography or photographs intended to display or accent female charms or attractions; also, any photograph having a considerable amount of sex appeal.

CHICHI, slang: Stylish; chic; fashionable; also, affected or esoteric.

CHLORAMPHENICOL: An antibiotic effective against certain rickettsiae and viruses.

CHLORDANE or CHLORDAN: An odorless liquid insecticide.

CHORAL SPEAKING: Interpretive reading or recitation, usually of poetry or rhythmic prose, by a group of voices known as a *speech choir*.

CHOREOGRAPH: To compose and arrange a ballet or dance; also, to provide a subject or a piece of music with a ballet or dance.

CHOROSCRIP: A system of notation used in teaching and recording dance figures and steps.

CINCHER: A wide, snug-fitting ornamental belt for women.

CLASSIFIED: Forbidden to be revealed out-

- side authorized circles, for reasons of national security.
- CLOAK-AND-DAGGER:** Of literature, dealing in intrigue and melodramatic action, usually of characters in a colorful historical setting, and involving espionage, duels, or the like.
- CLOBBER, slang:** To beat or pound mercilessly; also, to defeat overwhelmingly.
- CLOSED CIRCUIT:** Television transmission in which the signal is not broadcast but can be received only by interconnected receivers.
- CLOUD CHAMBER:** A closed vessel containing saturated water whose sudden expansion makes visible by a trail of white droplets the passage of an ionized particle.
- CLOUD SEEDING:** The introduction of a substance, as dry ice or silver iodide, into certain types of clouds in order to cause rainfall.
- CLOVERLEAF:** A road plan resembling a four-leaf clover, in which one road passes over another, permitting traffic to merge without left-hand or abrupt turns or direct crossings.
- CLUTCH:** A critical point; a pinch (as, to come through in the *clutch*).
- CLUTCH BAG:** A woman's purse or bag, usually small and without a handle, which is carried in the hand.
- COAXIAL CABLE:** A cable used in the transmission of telegraph, telephone, and television signals, consisting of a tube of conducting material surrounding but insulated from a central conductor.
- COFFEE BREAK:** A rest period during the working day, allowing the employee time for a cup of coffee.
- COLD FRONT:** In meteorology, the forward boundary of a mass of cold air.
- COLD WAR:** A struggle between two nations or groups of nations, waged by use of political and economic strategy, propaganda, and other measures short of armed combat.
- COLD WAVE:** In hairdressing, a permanent wave produced by a chemical solution.
- COLLECTIVE SECURITY:** Security of all the members of an association of nations from aggression by any other nation or nations.
- COLORCAST:** A television broadcast in color.
- COMBO:** A small group of musicians, usually jazz players;—from *combination*.
- COMIC BOOK:** A paper-bound book made up of a series of cartoons or comic strips, sometimes humorous, often telling a story of adventure or crime.
- COMMANDO:** A band or unit of troops specially trained for making surprise raids into enemy territory; also, a member of such a unit.
- COMMERCIAL:** That portion of a sponsored radio or television program devoted to advertising; also, the script prepared for the advertising announcement.
- COMMIE:** A member or agent of the Communist party; also, a fellow traveler.
- COMPATIBLE:** Designating a system in which color television broadcasts may also be received in black and white on receivers not specially equipped for color reception.
- COMPOUND F:** A hormone used in the treatment of arthritis.
- CONDITIONER:** A substance which, when added to soil, improves aeration, workability, and crop yield.
- CONSCRIPT:** To enroll by compulsion for military service.
- CONTACT LENS:** A lens of glass or plastic fitted to the eyeball, worn instead of the usual eyeglass to correct defects of vision.
- CONTAINMENT:** Restraint; specif., the restriction of Communism to fixed territorial limits.
- CONTOUR FARMING:** A system of farming in which plowing and planting follow the contour lines of sloping land, thus retarding erosion from the runoff of rainwater.
- CONVERSATION PIECE:** Any unusual or distinctive article, as of clothing or furniture, which is likely to attract attention and provide a subject for conversation.
- CONVERTER:** A device for adapting a television receiver to receive channels other than those for which it was designed.
- CONVERTIPLANE:** An aircraft that takes off and lands like a helicopter but flies like a conventional airplane.
- COOKOUT:** An outing at which a meal is cooked and eaten in the open.
- CORN:** Corny acting or playing.
- CORNY:** Trite, stale; old-fashioned, or contrived; also, of music, played or sung in a bland, unsophisticated style.
- CORONARY THROMBOSIS:** A blood clot (a *thrombus*) occurring in an artery of the heart.
- CORTISONE:** A compound used in treating rheumatoid arthritis and certain allergies.
- COUNTER-INTELLIGENCE:** Organized activities of military intelligence services designed to block enemy sources of information and deceive the enemy by ruses, misinformation, and the like.
- COUNTERWORD:** A word used in popular speech in such a variety of situations that its original, specific meaning is lost and it serves only as a counter or token used in place of a more definite word (examples: *swell, awful, nice*).
- COURTESY CARD:** An identification card which supposedly assures its holder of favors or special treatment, as from the police.
- CRACK UP:** To crash or cause to crash, as an airplane; hence, to break down; collapse; go to pieces.
- CRASHLANDING:** An airplane landing in which the plane is either damaged or destroyed.
- CREDIT LINE:** A line, note, or name published with an article, news story, photograph, or the like, acknowledging the source.
- CREEPING:** Making, or thought to be making, inroads or undesired progress (as, *creeping socialism*).
- CREW CUT:** A short-cropped, bristly haircut for men.
- CURVACEOUS:** Having a feminine figure which is well-proportioned and marked by pronounced curves.
- CUTBACK:** A reduction in a prevailing rate, amount, or number (as, a production *cutback*).

CYBERNETICS: Comparative study of the control system in the human brain and nervous system with that in such mechanical-electrical communication systems as computing machines.

CYCLOTRON: An apparatus used for imparting high speeds to electrified particles, used especially to bombard the nuclei of atoms in order to produce transmutations and artificial radioactivity.

DAISY: A circular cheese, usually about 12 to 14 inches in diameter and weighing between 18 and 24 pounds.

DDT: A colorless, odorless insecticide, used especially against body lice, flies, mosquitoes, and agricultural pests.

DEAD DUCK: Anything doomed or past recovery.

DEADPAN: A completely expressionless, immobile face.

DECAMISADO: A member of the Argentine working class.

DECONTROL: To remove control from (as, to *decontrol* the price of eggs).

DE-EMPHASIZE: To diminish in importance; to make less prominent (as, a move to *de-emphasize* football at a college).

DEEP-FREEZER: A cabinet where food may be quick-frozen and stored.

DEFICIT SPENDING: Spending in excess of income;—usually applied to a government.

DEGREE DAY: A unit that represents one degree of declination from any given point in the mean outdoor temperature for a day, often used in measuring fuel requirements for a building.

DE-ICER: Any system or mechanism used to rid or keep free of ice the wings and tail of an aircraft.

DELTA WING PLANE: A fast, high-flying airplane, triangular in shape, like the Greek letter delta.

DELTIOLOGY: The hobby of collecting post cards.

DENAZIFY: To rid (the people or institutions of a Nazified country) of Nazism and its influence.

DESENSITIZE: In psychiatry, to free from a neurotic state; to make immune to a morbid emotional domination.

DETECTAPHONE: A telephone apparatus equipped with a microphone transmitter, used especially for listening secretly.

DETERGENT: A soluble or liquid preparation, often called "soapless soap," that resembles soap in its ability to emulsify oils and hold dirt in suspension.

DIAL TONE: A steady hum, audible in a telephone receiver, indicating that the line is free and a number may be dialed.

DILLY: Something of superior or remarkable quality; often, something presenting unusual difficulties or complications.

DIM OUT: To obscure in dimness, as by restricting illumination to specks or slits of light, lights shaded from above, or blue lights.

DIRECTIVE: An order or instruction as to plan or procedure, such as might be issued by a military official, or by a government or business executive.

DISC JOCKEY or DISK JOCKEY: One who

conducts and announces a program of musical records, usually with advertising or nonmusical comments interspersed.

DISCOGRAPHY: A descriptive, classified catalogue or listing of phonograph records, usually including dates and performers.

DISCOPHILE: An enthusiastic collector or student of phonograph records.

DISPLACED PERSON or DP: A person driven or deported from his home country during World War II as a prisoner of war, or for forced labor, or because of his race, politics, or religion.

DOCUMENTARY: A film that depicts in artistic form a factual and authentic presentation, as of an event or a social or cultural phenomenon.

DOODLE: An aimless, somewhat automatic design, sketch, or scribbling made while one's mind is occupied with something else.

DOSIMETER: A device for measuring the amount of radioactivity absorbed by the body.

DOUBLE-DOME: A highbrow; an intellectual.

DOUBLE-TAKE: A delayed reaction to the importance or meaning of something that at first escaped notice;—usually in the phrase, to do a *double-take*.

DOUBLE TALK: Talk or writing that appears to be earnest and meaningful but is actually a mixture of sense, gibberish, and unintelligible verbiage.

DOUBLE-THINK: The ability to have in mind at the same time two contradictory beliefs and accept both;—coined by George Orwell in the novel *Nineteen Eighty-Four*.

DRIVE-IN: A place of business, as a theater or restaurant, designed to permit patrons to remain in their automobiles while watching a performance or making purchases.

DRONE: A pilotless airplane controlled by radio from the ground or another plane; also, a vessel similarly controlled.

DRUNKOMETER: A device for detecting and measuring the degree of alcoholic intoxication by analysis of the breath.

DUB: To provide (a film) with a new soundtrack; to blend music or sound effects into (a radio or television broadcast).

DUCK: An amphibious military vehicle having wheels and a propeller, that can be used as either a truck or a barge.

DYNEL: A synthetic textile fiber in staple form; also, the material made from this fiber.

EARMOLD: The portion of a hearing aid that fits into the ear.

ECDYSIAST: A strip-teaser;—a humorous term coined by H. L. Mencken.

EGGHEAD: An intellectual; a highbrow.

ELDER STATESMAN: A man who has retired from active public life but continues to act as an unofficial advisor, especially to government officials.

ELECTRONICS: The branch of physics that deals with the emission, motion, and effects of electrons.

ELECTROSHOCK: A state of shock induced by the passage of an electric current through the brain and useful in the treatment of certain mental disorders.

EMCEE: A master of ceremonies;—from *M. C.*

- ENRICH:** To improve (a food) in nutritive value by adding vitamins and minerals to it during processing.
- ESCALATOR CLAUSE:** A clause in a contract providing adjustment to cover such possibilities as increases or decreases in costs of labor, material, or living.
- ESCAPE LITERATURE:** Literature or writing providing mental escape or distraction from routine or reality.
- EXPEDITER:** One whose job it is to ensure an adequate supply of raw materials for fulfilling production contracts and to direct the movement of processed goods to where they are needed or wanted.
- EXPOSURE METER:** An instrument used by photographers for indicating the correct amount of exposure under varying light conditions.
- EXPRESSWAY:** A superhighway.
- FADE:** In radio and television, to change gradually in loudness or distinctness (as, to *fade* a picture or a sound in or out).
- FAIR-TRADE AGREEMENT:** An agreement between the manufacturer and the distributor of a trade-marked article, prescribing a minimum price for its sale.
- FALTBOT:** A collapsible boat similar in size and shape to a kayak.
- FAST BUCK:** Money that can be made readily or quickly, usually with little effort.
- FEATHERBED RULE:** A union rule that requires an employer to hire unneeded workmen or to pay for duplication of jobs; also, one limiting the amount of work that workmen may do in a day.
- FEATHER MERCHANT, slang:** One who tries for easy jobs or is thought to be lazy; also, *military slang*, a civilian.
- FEATURETTE:** A short feature; specif., a motion picture of less than the usual length.
- FEEDBACK:** A partial return of the effects or product of a process to its source or to a preceding stage;—used especially of social, psychological, or biological systems.
- FELLOW TRAVELER:** One who sympathizes with and, often, furthers the program or ideals of, a group (originally, the Communist party) without being a member of the group.
- FIFTH COLUMN:** Secret supporters of an enemy engaged in sabotage or other subversive activity within defense lines.
- FINGER PAINTING:** A technique in which splotches of pigments (*finger paints*) are applied to wet paper and spread with the hands or fingers to form a picture or design.
- FISSION:** The splitting of the nucleus of an atom into two nearly equal parts, resulting in a tremendous release of energy.
- FISSIONABLE:** Capable of undergoing fission.
- FIVE PERCENTER:** One who undertakes to aid businessmen in obtaining contracts or doing other business with the government, usually for a fee of five per cent.
- FLAME-OUT:** A sudden blowing-out of the fire of a jet engine, caused by improper functioning of the fuel-supply system.
- FLIPOVER CARTRIDGE:** A phonograph cartridge that has separate needles for playing both microgroove and standard records and that may be turned to bring the proper needle into playing position.
- FLUFF:** To bungle or stumble in delivering one's lines during a performance; also, to miss a cue.
- FLUID DRIVE:** An automotive power coupling between the flywheel of the engine and the transmission gears that operates on a hydraulic turbine principle.
- FLUORIDATION:** Treatment of drinking water with a fluoride to prevent tooth decay.
- FLYING SAUCER:** Any of various unidentified objects, usually described as disc- or saucer-shaped, reportedly seen in the air.
- FOAM RUBBER:** A spongy, fine-textured rubber used especially for cushions, mattresses and the like.
- FOLD:** To discontinue production or business for lack of patronage or because of public neglect (as, the stage play *folded* after only two performances).
- FRAME OF REFERENCE:** The environment of personal knowledge or experience in which an idea is conceived or interpreted.
- FREELoader:** A "sponge"; one who frequently obtains something (as food or drink) that is paid for by someone else.
- FREEWAY:** An express highway that bypasses towns and is largely free of intersections; a superhighway.
- FREEZE:** To fix inflexibly, as by an executive order, at a given level or in the status on a given day (as, to *freeze* a price or a design).
- FREQUENCY MODULATION or FM:** A virtually static-free system of radio broadcasting in which the frequency of the carrier wave is modulated in accordance with the form of the sound or signal wave.
- FRINGE AREA:** An area on the outer edges of one having a greater strength or concentration (as, a *fringe area* for television reception).
- FRINGE BENEFIT:** Any benefit, such as health insurance or sick leave, not included in the basic wage, that workers receive from their employers.
- FROGMAN:** A person equipped for extended periods of underwater swimming, usually for military reconnaissance or underwater demolition.
- FRONT:** A person or group serving as public representative for a pressure group or subversive organization, often unwittingly, while thinking to act in public or patriotic interests.
- FUSED COLLAR:** A collar, especially one on a man's shirt, that has been lined or otherwise treated to retain its shape.
- GADGETEER:** An inventor or maker of gadgets; also, one given to buying or using them.
- GAGSTER:** A writer of gags or jokes, especially for radio and television programs.
- GAMMA GLOBULIN:** A fraction of blood plasma rich in antibodies and used against diseases such as polio and hepatitis.
- GAPA:** A rocket-powered guided missile used against aircraft and against other missiles;—from ground-to-air pilotless aircraft.
- GENOCIDE:** A calculated attempt to destroy systematically a racial, religious, or polit-

- ical group; also, an effort to destroy the language, religion, or culture of a group.
- GERIATRIC:** Of or pertaining to *geriatrics*, the branch of medicine dealing with old age and its diseases; also, aged (as, the *geriatric* patient).
- GHETTO:** A quarter of a city in which members of a racial group are segregated by social and legal pressure.
- GI:** A person who is serving or has served as an enlisted member of the U. S. armed forces.
- GIMMICK:** A trick; a clever or artful device or scheme.
- GISMO:** A gadget; device; contraption; also, anything without a name.
- GIVEAWAY:** A radio or television show in which members of the audience participate and receive prizes.
- GOBBLEDYGOOK:** Involved or obscure language such as is frequently found in official pronouncements.
- GOLDBRICK, slang:** To shirk or find excuses to evade assigned work.
- GOOFBALL, slang:** A sleeping tablet, especially one of the barbiturates.
- GOOGOL:** In mathematics, the figure 1 followed by 100 zeros.
- GRASSROOTS:** The farming districts of the country; also, the people living in them, thought of as a politico-economic group holding firm and independent views.
- GRAVEYARD SHIFT:** The third of three daily shifts, as in a factory, usually beginning at midnight.
- GREEN THUMB:** A special or unusual ability to make plants grow;—usually in the phrase, to have a *green thumb*.
- GREMLIN:** An impish gnome, whimsically accused by airmen of tampering with motors, instruments, and the like.
- G SUIT:** An inflatable suit worn by aviators during rapid aerial maneuvers to counteract the effects on the body of pressure greater than gravity.
- GUIDED MISSILE:** Any missile whose course may be directed during passage by a built-in target-seeking device or by radio control.
- GUN:** To open the throttle of (an engine) to increase the speed.
- GYROPILOT:** A control mechanism, sometimes called *automatic pilot*, that keeps an airplane in level flight and on a set course.
- HALF-TRACK:** One of the endless chain-tracks used instead of the rear wheels on a certain type of vehicle; also, a tractor or truck with half-tracks and front wheels.
- HARDTOP:** An automobile having most of the characteristics of a convertible, but with a stationary steel top.
- HASSLE:** A mix-up; also, an argument or fight.
- H-BOMB or HYDROGEN BOMB:** An extremely powerful fusion bomb.
- HEDGEHOP:** To fly an airplane so low that it has to "hop" over trees and hedges.
- HELIPORT:** A place for helicopters to land in order to discharge or receive passengers or cargoes.
- HEPCAT:** A musician in a jazz band; also, a devotee of jazz.
- HEX:** A spell or enchantment; a jinx (as, to put the *hex* on someone).
- HIGH FIDELITY or HI-FI:** The reproduction of sound, usually by a radio or phonograph, with a high degree of faithfulness to the original.
- HIT PARADE:** A listing, as of popular songs or books, in order of current public preference.
- HOOD, slang:** A hoodlum; a rowdy.
- HOOPER or HOOPERATING:** An indication, based on the results of telephone polling, of the popularity of a radio or television program.
- HORSE'S TAIL = PONY TAIL,** below.
- HOT:** Radioactive; also, having to do with radioactive material (as, a *hot* laboratory).
- HOT ROD, slang:** An out-of-date automobile with the trimmings stripped off and the engine stepped up to permit high speeds.
- HOWGOZIT CURVE:** A running graph of the progress of an aircraft flight, especially a transoceanic one.
- HUCKSTER:** One whose business is commercial advertising, especially the preparation of clever, effective advertising programs for radio and television broadcasts.
- HYBRID CORN:** A crossbreed of Indian corn developed from selected strains and having the best characteristics of each.
- HYDROPONICS:** The growing of plants, especially vegetables, with their roots in water that contains the essential minerals, instead of in soil.
- HYPERTENSION:** Abnormally high arterial blood pressure; also, the resulting systemic condition.
- INFLUENCE PEDDLER:** One who tries to get special privileges, especially from the government, for his clients; a five-percenter.
- IN-SERVICE:** Taking place or continuing while in service (as, *in-service* training).
- INSTITUTE:** A short program of instruction or conferences for people already at work in a given field (as, a farmers' *institute* or a bankers' *institute*).
- INTERCOM:** A two-way short-distance communication system with microphones and loud-speakers at each end;—short for *intercommunication system*.
- IRON CURTAIN:** A barrier created by such means as censorship and prohibition of free travel to isolate Russian-controlled territory from outside contacts; hence, any similar barrier against communication.
- IRON LUNG:** A tank device for artificial respiration that forces air into and out of the patient's lungs.
- ISOBAR:** One of two atoms or elements having the same atomic weights but different atomic numbers.
- ISRAELI:** Of or relating to the Jewish state of Israel, in Palestine.
- ISSEI:** A Japanese immigrant to the U. S.; legally, an alien.
- JATO UNIT:** An auxiliary means of propulsion in which rocket engines are used to assist, the take-off of an airplane;—from *jet* assisted take-off.
- JEEP:** A small, rugged multipurpose motor vehicle; originally one having four-wheel drive.

JET PROPULSION: Propulsion of a body by forces resulting from the rearward discharge of a jet (a high-speed stream of fluid) through an orifice. The forces are a reaction to the discharge of the jet, in accordance with the Newtonian law that to every force there is an equal and opposite reaction.

JIVE: The slang or jargon used by swing musicians and jitterbugs; also, any similar slang.

JUKEBOX: A coin-operated automatic phonograph-record player.

JUNKIE, slang: A narcotics user or addict.

KEYNESIAN: Of or pertaining to a system of economics (often associated with the New Deal) advocating considerable government participation in the economic affairs of a country.

KICKBACK: The return of part of a sum received, as of wages or fees, prompted by a previous confidential agreement or by coercion.

KINESCOPE: A form of cathode-ray tube with a screen at one end on which television pictures or oscillographs may be produced;—called also *picture tube*.

KINESICS: The study of such body motions as winks and waves as related to communication between people.

KNOW-HOW: Technical skill and practical ability; competence in planning or producing something.

LANDING CRAFT: Any of numerous naval warcraft designed for putting ashore troops or equipment in beach assaults.

LATCH ON TO: To attach oneself; also, to appropriate; to take over.

LEFTIST: One who belongs to a radical or revolutionary party; also, one who holds or advocates ultraliberal principles.

LEPROMIN TEST: A test for the recognition of immunity to leprosy.

LIBRETTO: The plan or scenario for a ballet.

LIQUIDATE: To kill secretly; also, to eradicate ruthlessly.

LOAFER: A man's or woman's low leather step-in shoe, resembling a moccasin but having a flat heel and stiff outsole.

LOBOTOMY: A leucotomy; an incision into the frontal lobe of the brain to sever nerve fibers in an attempt to relieve certain mental disorders.

LOCKER PLANT: A business establishment having quick-freezing equipment and lockers for storing frozen foods.

LONGHAIR: Idealistic; intellectualized; high-brow (as, *longhair* music or *longhair* writing).

LOYALTY OATH: A signed statement of loyalty, often one in which the signer affirms loyalty to the U. S. and denies any Communist connections or sympathies.

LYSENKOISM: A biological doctrine advanced by T. D. Lysenko, Russian agronomist, in defiance of orthodox genetics.

MAE WEST: A yellow life-saving jacket that can be inflated by two cartridges of carbon dioxide, worn especially by airmen in flights over water.

MEGADEATH: One million deaths (as, the power of an atomic bomb may be indicated in terms of *megadeaths*).

MEGATON: A million tons; also, an explosive force equal to that of a million tons of TNT;—used especially with reference to a hydrogen bomb.

MERCY KILLING: Euthanasia; killing, especially in a quick, painless manner, to put the victim out of extreme pain or misery.

ME-TOO-ISM: The echoing of another's opinions or attitudes, usually implying an inability or unwillingness to think for oneself.

MICROFILM: A strip of film on which a reduced-size photographic record of printed matter may be kept in a small space.

MICROGROOVE: A narrow V-shaped groove used on phonograph records intended to play at speeds of 33 1/3 or 45 revolutions per minute.

MIDDELBROW: Middle-class; midway between highbrow and lowbrow.

MILK BAR: A place where milk, ice cream, and other dairy products are sold and may be consumed.

MOBILE: A delicately balanced type of sculpture, usually having movable parts which can be set in motion by air currents or other means.

MOLOTOV COCKTAIL: A crude explosive device, typically, a gasoline-filled bottle capped with an oil-soaked rag that is ignited just as the bottle is thrown at the target.

MOMISM: A supposed excessive admiration and sentimentalizing of mothers, thought to permit a possessive mother to deny her offspring emotional independence.

MONITOR: To check (a radio or television transmission) for quality or fidelity to band; also, to check (as a broadcast) for military or political significance.

MONOLITHIC: Consisting of one large, undifferentiated whole, exhibiting one harmonious pattern throughout (as, a *monolithic* party or culture).

MONTAGE: The production of one complete picture by combining several distinct ones, often in such a way that they blend with or into each other.

MORETIC: Pertaining to mores or social conventions.

MOTEL: A hotel or group of furnished cabins or attached cottages, situated near a highway, offering accommodations to automobile tourists.

MOTHBALL: That which has been placed in indefinite, protective storage (as, a *mothball* fleet or airplane).

MOTORCADE: A parade or procession of automobiles.

MOTOR POOL: A group or fleet of motor vehicles for use as needed by different organizations or individuals.

MULTIPHASIC: Having or considered in terms of many aspects or phases (as, a *multi-phasic* approach to a problem).

MUSCULAR DYSTROPHY: A hereditary disease in which there is progressive wasting away of the muscles.

NAPALM: A thickener used to gel gasoline for incendiary bombs and flame throwers.

NEEDLE: To vex or annoy by repeated sharp gibes; also, to goad or prod.

NEWSCASTER: One who broadcasts news, as on radio or television; also, a commentator.

NIACIN: A member of the B-vitamin group useful in the prevention of pellagra;—called originally *nicotinic acid*.

NISEI: A U. S. citizen born of Japanese immigrant parents.

NONOBJECTIVE: In art, creating effect through shapes and colors not intended to represent actual objects; abstract.

NO-SHOW: A passenger who, after making a reservation on an airplane, does not show up to claim it at flight time and has made no cancellation.

NUCLEAR: Having to do with the atomic nucleus (as, *nuclear physics*).

NURSERY SCHOOL: A center for children, usually under 5 years of age, providing supervised play and social training for a few hours a day.

NYLON: A synthetic material that can be fashioned into tough, strong, elastic threads and used in making brush bristles, hosiery, textile fabrics and the like.

OCCUPATIONAL THERAPY: The treatment of disease or injury by giving the patient regulated work that will help his recovery or rehabilitation.

OMNIBUS: A book of reprints, usually one containing works of the same type or by a single author.

OPPOSITE NUMBER: A person or position in one system corresponding to one in another (as, an ensign is the *opposite number* of a second lieutenant).

OSCAR: One of the statuettes awarded annually for highest excellence in motion picture work; hence, any annual award for excellence.

PACKAGE: A fully constructed, prearranged program or plan, such as a radio show or tour, usually offered for sale at a flat sum; also, any finished product made ready for immediate use by preassembling all essential elements into a unit.

PAN: To move (a camera) in order to follow a moving object or secure a panoramic effect.

PANIC SWITCH: The control on the ejector mechanism that throws a jet pilot from his plane in case of emergency.

PARAPSYCHOLOGY: A branch of psychology concerned with investigating evidence for telepathy, clairvoyance, and the like, and with experiments in the field of extrasensory perception.

PARA-RESCUE TEAM: A team of rescuers who drop by parachute, as to the scene of a plane crash, in order to give immediate aid to anyone in distress.

PARITY: The balance between the prices the farmer receives for his products and the prices he has to pay for the things he must buy.

PARTISAN: A member of a guerilla band working behind enemy lines and engaged in such activities as sabotage, demolition, and diversionary attacks.

PARTY DISCIPLINE: The discipline imposed on its members by a party;—usually applied to the Communist party.

PARTY LINE: The policy or course of action

followed by a party, originally specifically by the Communist party.

PATCH TEST: A test for determining susceptibility, made by applying to the skin small pads soaked with the allergy-producing substance in question.

PEDAL PUSHERS: Women's trousers, usually calf-length, for sports wear.

PENICILLIN: An antibacterial substance extracted from green mold, useful in treating infections.

PERIL POINT: The lowest rate to which a tariff can be reduced without injuring the industry of the country levying it.

PHOTOMURAL: An enlarged photograph, usually several yards long, affixed to a wall as decoration.

PICTURE TUBE = KINESCOPE.

PICTURE WINDOW: An extra-large window, usually in a living room, framing a desirable outside view.

PIGGY-BACK PLANE: A small airplane carried aloft on the "back" of a larger one, from which it is released in mid-air.

PIPE: In radio and television, to transmit (a program) by wire or coaxial cable.

PIZZA: A large flat tart made of bread dough spread with pieces of tomato, cheese, and shreds of meat, anchovies or the like, flavored with herbs, and baked thoroughly.

PIZZERIA: A restaurant or bakery where pizzas are made and sold.

PLATTER: A phonograph record.

PLUNGING NECKLINE: A very deep V-neckline in women's apparel.

PLUSH: Luxurious; over-elegant (as, a *plush* summer resort).

POLICE STATE: A totalitarian state having repressive government control of radio, press, culture, and economic and political life.

POLITIC: To campaign for political office; also, to seek to further a special end.

POLLEE: One who is questioned in or gives answers for a poll.

POLO SHIRT: A close-fitting pullover jersey or sport shirt of cotton knitwear, originally patterned after jerseys worn by polo players.

PONY TAIL: A hairdo for women, in which the hair is drawn back tightly from the face and up from the neck, and tied.

POODLE CUT: A very short, curly hairdo for women, in imitation of a poodle's coat.

POP: Short for *popular*;—used especially of music other than classical.

PORTAL-TO-PORTAL: Pertaining to the time a workman spends traveling from the portal or gate of company property to his actual place of work and in returning at the end of the work shift.

PREFAB: A prefabricated house or structure, construction of which consists merely of assembling and uniting standardized parts.

PRESSING: A phonograph record made from a matrix; also, the whole number of such recordings made at a single time.

PRESSURE GROUP: A minority group that brings pressure to bear on legislators or public opinion, often by lobbying or use of propaganda, to force legislation or change public policy.

- PRESSURE SUIT:** A suit worn by pilots flying at high altitudes, which inflates automatically when pressure inside the plane is lost.
- PRESSURIZE:** To maintain near-normal atmospheric pressure inside (the sealed cabin of an airplane) during high-level flight.
- PRIVATE EYE:** A private detective.
- PROFILE:** A vivid, concise biographical sketch; also, a concise analysis of any subject.
- PROXIMITY FUZE:** A device for making a projectile explode near the target.
- PSYCHODRAMA:** A spontaneous drama in which the actors exhibit their natural psychological reactions to a given situation, used especially in treating the mentally ill.
- PSYCHOMETRICS:** A branch of psychology that deals with the use and application of mental measurement; also, the technique of such measurement.
- PSYCHOSOMATIC:** Of or pertaining to the influence of mental factors on bodily disorders.
- PUBLIC RELATIONS:** The activities of a corporation, government, or other organization in building and maintaining good relations with the general public or with special groups.
- PUNCH CARD:** A data card with punched holes in particular places, each having an assigned significance, used in certain automatic business machines.
- PURGE:** To rid (a state or party) of members suspected of disloyalty.
- PUSHOVER:** An opponent easily defeated or a victim incapable of effective resistance; also, any problem presenting no real difficulties.
- QUARTERBACK:** To direct; to make plans and give instructions for carrying them out.
- QUICK-FREEZE:** To freeze (food) so rapidly that the natural juices and flavor are preserved.
- QUICKIE:** Anything hastily prepared or made; anything done without much preparation.
- RABBIT EARS:** A small indoor television antenna composed of two rods projecting upward from a ball-base in the form of a V.
- RACISM:** The assumption that certain races are naturally superior to others; also, any doctrine or program based on such an assumption.
- RADAR:** A powerful radio detecting device capable of establishing the distance, altitude, and direction of motion of any object in the path of its beam.
- RADIANT HEATING:** The heating of a house or room by heat radiated from large surfaces, such as floors, walls, or baseboards, that have first been warmed by heating coils or hot-air ducts.
- RADIATION SICKNESS:** An illness that results from exposure to radiation, as in radiotherapy or an atom bomb explosion.
- RANCH HOUSE:** A one-story dwelling, usually with an informal interior plan and a low-pitched roof.
- REACTOR:** An arrangement of fissionable material designed for the production and control of a chain reaction;—called also *nuclear reactor* and *pile*.
- RECESSION:** A slowing down of commercial and industrial activity, less severe than a depression; also, a period of such slackening.
- RECONVERSION:** The process of converting (especially a war plant) back to the production of civilian goods.
- RED-BAITER:** One who baits, attacks, or harasses communists or radicals.
- REFRESHER:** Providing reinstruction after a period of inactivity or instruction designed to keep one abreast of new developments in a field (as, a *refresher* course in auto mechanics).
- RESISTANCE:** An organized underground movement in a conquered country made up of groups of fighters engaged in sabotage and secret operations against occupation forces;—often with *the*.
- REV:** To raise or lower the number of revolutions per minute;—originally, of an airplane motor.
- Rh FACTOR:** A factor present in the red blood cells of 85 per cent of white persons (Rh-positive) and absent in 15 per cent (Rh-negative), so called because discovered in the blood of *Rhesus* monkeys. Rh incompatibility is manifested by red cell destruction and occurs when the two types are mixed in one person, especially as in the infant of an Rh-positive father and Rh-negative mother.
- RHUBARB:** A heated argument or dispute, often one that takes place on the field during a baseball game.
- RIBOFLAVIN:** Vitamin B₂, the growth-promoting substance of the vitamin-B group.
- RIGHTIST:** In politics, a member of the right; a conservative or royalist.
- ROBOT BOMB:** A small, pilotless jet-propelled airplane, steered by a gyroscopic device and loaded with explosives, that falls as an aerial bomb when its fuel supply is gone.
- ROC:** An aerial bomb with a television apparatus that transmits information back to the bombardier, who may then correct his initial aim by remote radio control.
- ROCKET SHIP:** An aircraft propelled by rocket power.
- ROLLER DERBY:** A form of sport in which teams on roller skates race around a track.
- ROTATION:** The military system of exchanging individuals or units assigned to combat or arduous duties with personnel more comfortably situated.
- RUMPUS ROOM:** A room in a home, often in the basement, set apart and suitably furnished for games and recreation.
- RUPTURED DUCK:** The symbol of an eagle with wings outspread depicted in the discharge emblem for personnel of the U. S. armed services.
- RUSSIAN ROULETTE:** A game or act of bravado in which the "player" puts one cartridge into a revolver, aims it at himself, spins the cylinder, and pulls the trigger.
- SATELLITE:** A state or country politically

- and economically dominated by a more powerful neighboring one.
- SCAN:** In radar, to cause (a certain area) to be traversed by a directive beam.
- SCARE BUYING:** Sudden buying, often involving an overstocking, of certain goods because of the fear that they may become scarce or unobtainable.
- SCHMOE or SCHMO, slang:** A stupid person; a misfit; a jerk.
- SCIENCE FICTION:** Imaginative or fantastic fiction, dealing especially with such subjects as life in the future, interplanetary travel, and life on other planets.
- SCRATCH TEST:** A test for determining susceptibility, made by rubbing an extract of the allergy-producing substance into the skin.
- SCREEN:** To pass through a standardized test for sorting out candidates according to abilities or eliminating the unfit; hence, to examine or select methodically.
- SCREWBALL:** Someone whose ideas or actions are crazy or fantastic; also, anything ridiculously absurd or zany.
- SCRIPTER:** A writer of scripts, as for movies, radio, or television.
- SEND:** In swing music, to perform with or inspire to spontaneous improvisations; also, to play so as to elate a listener.
- SHAKEOUT:** A moderate slowing down of commercial and industrial activity with a decrease in prices and employment, usually regarded as a readjustment toward normal after a period of inflation.
- SHARP, slang:** Conspicuously attractive; in keeping with the latest styles, as of clothing or speech.
- SHOCK THERAPY:** Treatment of mental disorders by means of a coma induced artificially by the administration of drugs or electric shock.
- SHOOTING WAR:** Conflict involving actual participation of armed forces in combat, as opposed to a war of nerves or a propaganda war.
- SHOPPING CENTER:** A group of retail stores or other business places, sometimes in one building, and usually provided with a large parking lot.
- SIGNATURE:** A tune or sound effect used to identify a particular radio program or feature;—called also *theme*.
- SILK SCREEN PROCESS:** A stencil method in which a design is made on a fine-mesh silk screen and transferred to another surface by forcing pigment through the screen with a squeegee.
- SIMULCAST:** A simultaneous broadcast of a program by radio and television; also, a program thus broadcast.
- \$64 QUESTION:** The most baffling question in a given situation, often one that defies direct answer.
- SKIP-STOP:** Not stopping at all points (as, *skip-stop* elevator or subway service).
- SKYSWEEPER:** A radar-aimed anti-aircraft weapon.
- SKYTYPING:** A technique, similar to sky-writing, in which seven equally spaced aircraft emit puffs of smoke to form the letters of a message.
- SLICK or SLICK PAPER:** A large-circulation magazine printed on glossy paper;—usually implies slightness of content and technical smoothness.
- SMAZE:** A combination of smoke and haze.
- SMEAR:** To defame or blacken the reputation of a person or group by name-calling or by maliciously spreading exaggerated charges or rumors.
- SMEAR CAMPAIGN:** A concentrated program of vilification and smearing.
- SNACK BAR:** A counter or bar at which light refreshments and lunches are sold or served.
- SNEAK PREVIEW:** An unannounced showing of a new motion picture, usually to determine audience reaction to it.
- SNOLLYGOSTER:** A rascal or an unscrupulous person, especially an unprincipled politician.
- SNOW:** Small, moving, bright or dark spots on a television screen, resulting from the same causes as static in radio.
- SOAP OPERA:** A daytime radio or television serial drama performed on a commercial program chiefly for housewives.
- SOCIALIZED MEDICINE:** Administration by a government or other organized group of medical and hospital services for all members of a class or all members of the population.
- SONAR:** An apparatus that detects the presence and location of submarines or other underwater objects;—from sound navigation and ranging.
- SOUFFLÉ:** Tiny multicolored beads of glass or metal, used for embroidery.
- SOUND CONDITIONING:** The control of sound, as in an auditorium, by eliminating unwanted noise and excessive reverberations.
- SOUP UP:** To step up the horsepower of a motor, as on an airplane or a jalopy.
- SPACE:** Popularly, the region beyond the earth's atmosphere, lying between and beyond the planets and the stars.
- SPACE MEDICINE:** A suggested branch of medicine which would try to study conditions of outer space and their effect on the human body.
- SPACESHIP:** An imaginary aircraft for interplanetary travel.
- SPEECH CLINIC:** A clinic for the diagnosis and correction of speech disorders.
- SPELUNKER:** One whose hobby is exploring and studying caves and underground phenomena.
- SPIV, slang:** One who contrives to make a living without working; a slacker.
- SPLINTER GROUP:** In politics, a group broken away from a larger, original organization.
- SPLIT-LEVEL HOUSE:** A house built on different levels, usually with the floor level of a single-story section about midway between the floor levels of an adjoining two-story section.
- SPOTTER:** A civilian who watches the sky to report and identify approaching aircraft.
- STATELESS:** Without a state or nationality, as a person who was a citizen of a country no longer in existence.
- STATESIDE:** Of, pertaining to, characteristic of, or coming from the continental U. S.

(as, a transfer from Europe to *stateside* duty).

STATIONARY FRONT: In meteorology, a boundary between two air masses which show little or no movement.

STATION BREAK: In radio and television, the pause in a program or between programs to permit stations to identify themselves.

STATION WAGON: A sedanlike automobile having a tail gate and back seats that can be removed or folded so the vehicle can be used for light trucking.

STATISM: Government control or direction of important aspects of the economic life of a citizen.

STEREOPHONIC: Of reproduced sound, giving the effect of coming from two or more directions.

STOCK CAR RACING: Automobile racing in which ordinary cars are used rather than specially constructed racers.

STOCKPILE: A reserve supply of any essential material accumulated and stored as a safeguard against a shortage.

STORM COAT: A tailored winter coat for men or women, usually having a heavy lining and a mouton collar, and often made of gabardine.

STRAWHAT CIRCUIT: A summer theater circuit, often including the more popular resort areas.

STREPTOMYCIN: A substance extracted from certain soil bacteria and used against the bacteria of certain diseases, as typhoid fever, tularemia, and tuberculosis.

SULFA: Of or belonging to a class of drugs that are related to sulfanilamide and have a destructive action against certain types of bacteria.

SUPERHIGHWAY: A highway consisting of four or more lanes, designed for fast-moving traffic.

SUPERMARKET: A large, departmentalized retail store, usually self-service, selling foods and other household merchandise.

SUPERSONIC: Designating a speed greater than that of sound (about 738 miles per hour); also, moving or capable of moving at such speed (as, a *supersonic* aircraft).

SWING SHIFT: The work shift between the day and night shifts in a factory operating on a 24-hour basis, usually from 4 p.m. to midnight.

SYNC: In motion pictures and television, short for *synchronize* or *synchronization*.

TAKE-HOME PAY: The remainder of a person's gross wages after deductions, as for income-tax withholding, retirement, and union dues, have been made.

TAPE: A magnetized ribbon on which sounds may be recorded. — To record (sounds) on such a ribbon.

TELECAMERA: A television camera.

TELECAST: A program broadcast by television. — To broadcast by television.

THEATER-IN-THE-ROUND: A theater so arranged that the action area is in the center and the audience is seated on all sides of it;—called also *arena theater*.

THERMONUCLEAR: Pertaining to the heat energy resulting from or connected with changes in the nuclei of atoms.

THIAMINE: A vitamin, also known as *vitamin B₁*, that prevents beriberi and certain kinds of neuritis.

THOUGHT CONTROL: Repressive control or domination of individual ideas and thinking by another person or group.

THREE-DIMENSIONAL or 3-D: Giving the illusion of depth or varying distances;—applied to pictures, especially stereoscopic motion pictures.

TONE ARM: The movable part of a phonograph that contains the sound box or pickup and permits the needle to follow the grooves in the record.

TOP-DRAWER: Of the highest or first order of rank, excellence or importance.

TRACE ELEMENT: A chemical element, usually a metal, essential in minute amounts to the welfare of a plant or animal.

TRANSISTOR: An electronic device similar in use to the electron tube.

TWEEDY: Given to or fond of wearing tweeds;—usually implying a certain matter-of-factness, robustness or informality of manner.

TWEETER: A small loudspeaker that responds only to high sound frequencies and is used to reproduce sounds of high pitch.

2,4-D: A white crystalline compound used as a weed killer.

ULTRAHIGH FREQUENCY or U.H.F.: In radio and television, any frequency in the range from 300 to 3000 megacycles.

VEEP: A vice-president.

VERY HIGH FREQUENCY or V.H.F.: In radio and television, any frequency in the range from 30 to 300 megacycles.

VIDEO: *Television*. Pertaining to or used in sending or receiving the image (as, *video* frequency). Contrasted with *audio*.

VIDEOCAST: A television broadcast.

VIP: A very important person; sometimes, one using an assumed name for security reasons.

WALKIE-LOOKIE: A portable, battery-operated television camera.

WALKIE-TALKIE: A compact, battery-operated transmitting and receiving radiotelephone that is carried like a knapsack and especially adapted for communication in the field.

WATER SKIS: Wide skis which are towed by a fast motorboat and are ridden like a surfboard.

WEEDICIDE: Any weed killer, especially a chemical one, as 2,4-D.

WELFARE STATE: A state that, by its concern with public health, insurance against sickness and unemployment, and other similar measures, assumes a large share of responsibility for the welfare of its citizens.

WETBACK: A person who enters the U. S. illegally from Mexico by wading or swimming the Rio Grande River.

WHAMMY: A curse or jinx (as, to put the *whammy* on a person).

WITCH-HUNT: A searching out of victims, especially liberals, professedly to expose them as disloyal or subversive, but actually to harass them for political reasons.

WOOFER: A loudspeaker, larger than a tweeter, that responds only to lower sound frequencies.

ZOOT SUIT: A suit of extreme cut, usually having a long jacket with broad shoulders, and high-waisted peg-top trousers.

Words Frequently Misspelled

(Here spelled correctly)

abbreviate	annul	bleach	commissary	cyclone
abeyance	annulment	bonnet	commission	cygnet
abolition	anomaly	bouillon	committee	cylinder
abridge	anonymous	boundaries	commodore	cylindrical
abscess	answer	bouquet	comparable	
absence	antechamber	bourgeoisie	compatible	daffodil
absorption	antediluvian	brilliant	compel	dahlia
abstinence	antenna	browse	compelling	damage
abysmal	anticipate	bullion	complexion	dearth
abyss	antidote	bunion	compromise	debatable
accede	apologize	buoyancy	concede	debilitate
accelerate	apoplexy	bureaucracy	conceit	decadence
accessory	appalling	business	conceive	deceased
accidentally	apparatus		concomitant	deceitfully
acclaim	appreciation	cafeteria	concupiscence	deceive
accommodate	appurtenance	callously	concurrence	decision
accompaniment	argosy	calorie	condemn	defendant
accordance	argument	candidacy	condescension	deference
accredit	arraign	cantaloupe	connoisseur	defiant
accumulate	ascend	canteen	conscience	definitely
accuracy	ascension	capitalize	conscientious	delegate
achieve	ascertain	captaincy	conscious	delicacy
acknowledge	asinine	cassess	consecrate	demise
acoustic	aspirant	carillon	consistent	denouement
acquaintance	assassinate	carriage	conscious	descendant
acquiescent	assistance	carrot	conspiracy	desecrate
acquire	association	cartilage	constituency	desiccate
acquisitive	assurance	casualties	constituent	despair
acquit	attendance	ceiling	consulate	desperate
acrimony	attenuate	cemetery	contaminate	despicable
across	attorney	chalet	contemptible	despise
adaptation	audible	challenge	contemptuous	despondent
addition	audience	chamois	contentious	detachable
address	autumn	champagne	continually	deterrent
adept	auxiliary	changeable	controversy	development
adequacy	azalea	character	convalescent	diabetes
adolescence		chauffeur	convenient	diaphragm
adventitious	babyhood	chemist	convertible	dictionary
advocacy	bacchanalia	cherub	cooling	diesel
affable	bachelor	chicory	cordially	different
aggravate	baggage	chief	corollary	diffident
aggregate	banana	chilblain	correlate	dilapidated
aggressive	barbecue	chivalrous	counterfeit	dilatory
aghost	barbiturate	choosing	counterrevolution	dilemma
align	battalion	chronicle	tion	dilettante
alleged	believe	chrysanthemum	courageous	diligent
allegiance	beneficiary	cipher	courteous	dimension
allotment	benefited	circuit	court-martial	dimity
all right	benign	circumstantial	crescent	dining room
allure	bereave	civilize	critically	diphtheria
amateur	beseech	civilly	crochet	diplomacy
amenable	beverage	clumsily	croquet	disappear
analogous	bibliography	coarsen	cruelty	disappoint
analysis	bicycle	cocoa	cunning	disapprove
annals	biennial	codicil	curriculum	disastrous
annihilate	bigoted	column	curcory	discern
annually	billious	coming	custodian	discipline
annuity	blasphemous	commencement	customary	disconsolate

discrepancy	equally	gauze	indefatigable	legendary
discretion	equipped	genealogy	indefeasible	legitimate
disdain	erratic	genre	indefensible	leisure
disillusion	especially	ghastly	indelible	leprosy
disinter	ethereal	gibber	independence	lettuce
disparage	evanescent	giblets	indict	liable
disperse	eventually	gingham	indigenous	librarian
dissatisfaction	evidently	gizzard	indiscriminate	ligament
dissemble	evilly	globule	indispensable	likelihood
dissenter	exaggerate	government	individuality	limousine
dissimilar	exasperate	gradient	indivisible	liquor
dissipate	exceed	grammar	inexhaustible	litany
dissolve	excel	grateful	infallible	livelihood
distention	excellent	gratitude	influential	loathe
divine	exception	grievous	inimical	loneliness
dizziness	excerpt	grimace	innate	lonely
dizzy	excess	gruesome	innocuous	loosely
dogged	excessive	guaranteed	inoculate	lunacy
domain	excise	guidance	insensate	luscious
domicile	excitement		inseparable	
dormitory	excrecence	haggle	insistence	mackerel
dotage	execrable	hallucination	intellectually	mackintosh
doughnut	exhaust	handkerchief	intercede	maddening
dour	exhibit	harass	interpret	maggot
duly	exhilarate	harness	interracial	maintenance
dutiable	exhort	heifer	interrupt	malaria
dutiful	exhume	height	intimidate	manacle
	existence	heresy	introvert	maniacal
earnest	exorbitant	hideous	irreconcilable	manufacturer
eavesdropper	expedient	historically	irrefutable	marmalade
ebony	experience	hoary	irresistible	massacre
eccentric	extension	homogeneous	irrespective	mayonnaise
echoes	extenuate	horoscope	irreverent	measles
echoing	extinguish	hygiene	irrigate	mediocre
ecstasy	extraordinary	hypnotic	isosceles	mediocrity
edible	extravagant	hypocrisy		mellifluous
editor	exuberant	hypocrite	jaundice	metamorphosis
effervescent	exultant	hypocritical	jealousy	meteorology
efficiency		hysterically	jeopardy	millionaire
effigy	fallacy		jockey	mimicking
effusive	fallible	idiocy	jollity	mimicry
egress	fascinate	idiosyncrasy	journeyman	miniature
elder down	fiery	idolatrous	joviality	miscellaneous
eighth	filament	illegitimacy	jovially	mischievous
elegy	financier	illegitimate	jugular	misspell
elementary	fissure	illiterate		moccasin
eligible	flaccid	illogical	kaleidoscope	mortgage
eliminate	fluorescent	imaginary	khaki	mountaineer
emanate	forcible	imbecile	kiln	mountainous
embarrassment	foreboding	imitate	kimono	mulatto
emigrant	foresee	immaculate	kindergarten	murmur
eminent	forsythia	immeasurable	knead	mysterious
emphatically	fracas	immediately	knowledge	
emulate	fragility	immorality		naphtha
enable	friar	immune	laboratory	narcissus
encourage	friend	impeccable	labyrinth	nascent
endear	frivolous	impertinent	lacquer	naturally
endorse	fugue	implement	ladle	nausea
energetic	fulsome	improvise	ladylike	nauseous
enervate	functionary	incensed	language	necessarily
ennoble	fundamentally	incessantly	laryngeal	necessitate
entail		incidentally	larynx	niece
enumerate	gabardine	incise	lascivious	niggardly
enunciation	gagged	incongruous	latitude	ninth
enviable	gamut	incorruptible	lattice	noncombatant
environment	garrulity	incredible	leaven	noticeable
equalize	gaseous	indebted	legacy	notoriety

obedience	pompous	referable	sanitarium	succeed
obeisance	pontiff	referee	sassafras	success
obligate	pontificate	reference	scandalous	succor
obscene	portrait	referendum	scenario	sufferance
obsession	possessive	refraction	scentless	superintendent
obstacle	possibility	rehearsal	schedule	supervise
obstinate	potatoes	relevant	schism	supplement
occasion	practicability	religious	scintillate	suppress
occurrence	precede	reminiscence	scourge	surfeit
oddy	precedence	renaissance	scurrilous	surfeited
offensive	precedent	renounce	scythe	surprise
official	precocious	renown	secede	surveillance
ominous	predecessor	renunciation	sedentary	susceptible
omission	preferable	repellent	seesaw	syllable
oneself	prejudice	repercussion	segregate	symbolically
operator	presence	repertory	seize	symmetrical
opportunity	presumptuous	repetitious	self-reliant	symmetry
opposite	prevalent	reprieve	sensitive	syphilis
optimist	primeval	rescind	sensual	systematically
origin	privilege	resemblance	sententious	
oscillate	probably	reservation	separate	taffeta
ostentatious	proceed	reservoir	serviceable	talisman
outrageous	professor	residual	severely	tariff
oxidize	promenade	resilient	shellacking	tattooing
	pronunciation	resistance	shield	technicality
palatable	propaganda	resonance	shriek	temperament
pamphlet	propeller	respectively	siege	temperature
panacea	protein	respite	sieve	tempestuous
pantomime	pseudonym	responsible	significance	temporary
parallel	psychoanalysis	restaurant	similar	tenacious
parliamentary	psychology	resurrect	sirocco	tendon
paroled	ptomaine	retallate	skein	tenement
parricide	publicly	retina	skillet	tension
participle	pursuit	retrieve	sleigh ride	tentacle
particularly	pyramid	veille	sleight of hand	testament
pastime		revelation	slimy	theirs
patience	quadruped	reverence	slovenly	thief
pavilion	quandary	reversible	sluggish	thoroughfare
pedant	quarantine	revolution	sluice	thousandth
pedestal	quarrelsome	rhapsody	smorgasbord	threshold
penicillin	quay	rhetorically	so-called	thunderous
perceive	querulous	rheumatic	soccer	tidiness
perennial	queue	rhinestone	solder	timorous
peripatetic	quixotic	rhinoceros	solecism	tinselly
permissible	quizzes	rhododendron	soluble	titillation
perseverance	quizzical	rhythm	solvable	tobacco
persistent		rickety	somersault	toboggan
personality	racketeer	ridiculous	sophisticated	tolerant
personnel	ragamuffin	righteous	souvenir	tomatoes
perspiration	railry	riotous	spacious	tonsillectomy
persuade	rapidity	riveter	spatial	tonsillitis
physician	ravenous	rueful	specimen	toque
planos	realize	rummage	spigot	torrential
picnic	really	runaway	sponsor	tortoise
picnicking	rebus	rutabaga	squalid	tournament
piecemeal	recalcitrant		squalor	tourniquet
pierce	recede	sabotage	stabbing	trachea
pigsty	receipt	sachet	staccato	tradition
pilgrimage	receive	sacrament	statue	trafficking
pillory	recipe	sacrificial	stoically	tragically
pinion	recipient	sacrilege	straightway	transcendent
piteous	recognition	sacrilegious	strait-laced	transept
playwright	recollect	sadism	stubbornness	transient
plebiscite	recommend	saffron	subsidize	transparency
pneumatic	recoup	salient	substantial	transubstantia-
pneumonia	recruit	sanatorium	subtle	tion
	redolent	sanctuary	subtlety	trauma
				tread

trek	tyrannical	untenable	virile	whooping cough
tremendous	tyranny	unwieldy	virtual	whore
trepidation	tyrant	upbraid	visibility	wield
tributary		usually	visionary	withhold
tricycle	ukulele	utensil	vitality	witticism
triennial	ulcerous	utilize	vitaly	wizard
trollop	ultimate	utopia	voluminous	wondrous
trough	unadulterated		voluntarily	wool
trousseau	unalloyed	vaccinate		worried
truant	unanimous	vacillate	warrior	worrying
truism	uncomplimen-	vacuum	weakling	wrapper
truly	tary	valet	weasel	wreak
tuberculosis	unconscionable	vanilla	weather vane	wrestle
tumultuous	unctuous	vegetable	weighing	
turpentine	undoubtedly	vehicle	weight	yacht
tussle	unexceptionable	venereal	welcome	yield
tweezers	unguent	vengeance	whalebone	
tycoon	unparalleled	vermillion	wheelie	zealous
typhoon	unprecedented	vigilance	whimsical	zoology
typical	unpredictable	villify	whirl	zwieback
typify	unrequited	villain	wholly	

Forms of Address

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Abbot. Address: The Right Reverend _____, Abbot of _____. *Begin:* Right Reverend and dear Father.

Alderman. Address: Honorable _____. *Begin:* Dear Sir.

Ambassador. Address: His Excellency, _____, Ambassador of _____ at _____. *Begin:* Sir; or Excellency.

Ambassador and his wife. Address: His Excellency, The _____, Ambassador and Mrs. _____. *Begin:* Your Excellencies.

Archbishop (Anglican). Address: The Most Reverend His Grace the Lord Archbishop of _____. *Begin:* My Lord Archbishop; or Your Grace.

Archbishop (Roman Catholic). Address: The Most Reverend _____, D.D., Archbishop of _____. *Begin:* Your Excellency.

Archdeacon. Address: The Venerable The Archdeacon of _____. *Begin:* Venerable Sir.

Army Officers. Address: The Commander in Chief, Army of the U. S.; or (use officer's rank) _____. U.S.A. *Begin:* Sir; or My dear General _____.

Assemblyman. Address: The Honorable _____, Member of Assembly; or Assemblyman _____. *Begin:* Sir; or My dear Mr. _____.

Assistant Secretary (Assistant to a Cabinet Officer). Address: Honorable _____, Assistant Secretary of _____. *Begin:* Sir; or Dear Mr. _____.

Associate Justice. Address: The Honorable _____, United States Supreme Court; or Mr. Justice _____. The Supreme Court. *Begin:* Mr. Justice; or Dear Justice.

Baron. Address: The Right Honourable Lord _____. *Begin:* My Lord.

Baroness. Address: The Right Honourable the Baroness _____. *Begin:* Madam.

Baronet. Address: Sir John _____. Bt. or Bart. *Begin:* Sir.

Baronet's wife. See Lady, below.

Baron's wife. See Baroness, above.

Bishop (Anglican). Address: The Right Reverend the Lord Bishop of _____. *Begin:* My Lord Bishop; or My Lord.

Bishop (Methodist). Address: Reverend Bishop _____. *Begin:* Dear Sir; or My dear Bishop _____.

Bishop (Protestant Episcopal). Address: To the Right Reverend _____, Bishop of _____. *Begin:* Right Reverend and Dear Sir; or Dear Bishop _____.

Bishop (Roman Catholic). Address: The Most Reverend _____, Bishop of _____. *Begin:* Your Excellency; or Most Reverend Sir.

Cabinet Officers (U. S.). Address: The Honorable the Secretary of State (or Labor, etc.); The Secretary of State, etc. *Begin:* Sir; or My dear Mr. Secretary.

Canon. Address: The Very Reverend Canon _____. *Begin:* Very Reverend Canon; or Dear Canon _____.

Cardinal. Address: His Eminence John, Cardinal _____. *Begin:* Your Eminence.

Cardinal (if also an Archbishop). Address: His Eminence _____, Cardinal _____. Archbishop of _____. *Begin:* Your Eminence.

Chargé d'Affaires. Address: The Chargé d'Affaires of _____. *Begin:* Dear Sir; or My dear Mr. _____.

Chief Justice of the U. S. Address: The Chief Justice of the U. S.; or The Chief Justice, The Supreme Court, Washington, D. C. *Begin:* My dear Mr. Chief Justice; or Sir.

Clergyman. Address: The Reverend _____; or (if doctor of divinity) The Rev. Dr. _____. Begin: Dear Sir; or Reverend Sir.

Clerk of Senate or House. Address: The Honorable _____, Clerk of _____. Begin: Sir; or Dear Sir.

Commissioner of Bureau. Address: The Honorable _____, Commissioner of the Bureau of _____. Begin: Sir; or Dear Sir.

Congressman. Address: Honorable James H. Smith, House of Representatives. Begin: Sir; or Dear Sir.

Consul. Address: To the American Consul at _____; or _____, Esq., American Consul at _____. Begin: Dear Sir.

Countess. Address: To the Right Honourable The Countess of _____. Begin: Madam.

Dame. Address: Dame _____. Begin: Madam.

Deacon. (Anglican and Protestant Episcopal). Address: The Reverend Deacon _____. Begin: Reverend Sir.

Dean (Ecclesiastic). Address: The Very Reverend the Dean of _____. Begin: Very Reverend Sir; or Sir.

Dean, Rural (Roman Catholic Church). Address: The Very Reverend _____, R.D., or V.F. Begin: Very Reverend Father.

Dean of a College or Graduate School. Address: Dean _____. Begin: Dear Sir; or Dear Dean _____.

Divorced woman. Address: Ordinarily use the maiden name with Mrs. Some divorced women prefer to resume the Miss.

Doctor of Divinity. Address: _____, D.D.; or Rev. Dr. _____. Begin: Dear Sir; or Dear Dr. _____.

Doctor of Philosophy, Laws, Medicine, etc. Address: _____, Ph.D. (LL.D.) (M.D.); or Dr. _____. Begin: Dear Sir; or Dear Dr. _____.

Dowager. See *Widow*, below.

Duchess. Address: Her Grace the Duchess of _____; or The Most Noble the Duchess of _____. Begin: Madam; or Your Grace.

Duchess of the Blood Royal. Address: Her Royal Highness The Duchess of _____. Begin: Madam; or May it please your Royal Highness.

Duke. Address: His Grace the Duke of _____; or The Most Noble the Duke of _____. Begin: My Lord Duke; or Your Grace.

Duke of the Blood Royal. Address: His Royal Highness The Duke of _____. Begin: Sir; or May it please your Royal Highness.

Earl. Address: The Right Honourable The Earl of _____; or The Earl of _____. Begin: My Lord.

Earl's wife. See *Countess*, above.

Envoy. Same as Minister (Diplomatic).

Esquire. Address: _____, Esq. Begin: Sir; or Dear Mr. _____. (Note.—Esq. is never used if the person is addressed by any other title, even Mr.)

Governor. Address: (In Mass. and by courtesy in some other states) His Excellency, The Governor of _____; or His Excellency U. S.) The Honorable the Governor of _____; or Hon. _____. Governor of _____. Begin: Sir; or Dear Sir.

Governor-General of Canada. Address: His Excellency The Right Honourable _____, (plus rank or title, if any). Begin: My Lord; or Sir.

Governor-General's wife. Address: Her Excellency _____. Begin: Madam.

Judge (U.S.A.). Address: The Honorable _____, U. S. District Judge. Begin: Dear Sir; or My dear Judge _____.

King. Address: The King's Most Excellent Majesty; or His Most Gracious Majesty, King _____. Begin: Sir; or May it please your Majesty.

King's Counsel. Address: To _____, Esq., K.C. Begin: Sir.

Knight. Address: Sir John _____ (Initials of his order, if any, as K.C.B.). Begin: Sir.

Knight's wife. See *Lady*, below.

Lady. Address: Lady _____, or (if daughter of a baron or viscount) Hon. Lady _____; or (if the daughter of an earl, marquis, or duke) Lady Florence _____. Begin: Madam; or Your Ladyship.

Lawyer. Address: _____, Esq.; or Mr. _____, Attorney at Law. Begin: Dear Sir; or My dear Mr. _____.

Lieutenant Governor. Address: The Honorable _____, Lt. Governor of _____. Begin: Sir; or Dear Sir.

Maid of Honor. Address: The Honourable Miss _____. Begin: Madam.

Marchioness. Address: The Most Honourable the Marchioness of _____. Begin: Madam.

Marquis. Address: The Most Honourable the Marquis of _____; or The Marquis of _____. Begin: My Lord Marquis.

Mayor (in Canadian cities and towns, and English boroughs). Address: The Right Worshipful the Mayor of _____ (English); His Worship, The Mayor of _____ (Canadian). Begin: Sir.

Mayor (in the U. S.). Address: The Honorable _____, Mayor of _____; or The Mayor of the City of _____. Begin: Sir; or Dear Mr. Mayor.

Member of Parliament (or of a Provincial Legislative Council or Legislature, etc.). To the ordinary form of address add M.P. (or M.P.P.; or M.L.A., etc.). Begin: Sir.

Minister (Diplomatic). Address: The Honorable _____, Minister of _____. Begin: Sir; or My dear Mr. Minister.

Minister (Religious). See *Clergyman*, above.

Moderator (Presbyterian Church). Address: The Right Reverend _____. Begin: Right Reverend Sir.

Monsignor. Address: The Right Reverend Monsignor _____. Begin: Right Reverend and dear Monsignor.

Mother Superior of a Sisterhood. Address: The Reverend Mother Superior, Convent of _____; or Reverend Mother _____, O.S.D. (or other initials of the order). *Begin:* Reverend Mother; or Dear Madam.

Naval Officers. Address: The Admiral of the Navy of the U. S.; or Captain _____, U.S.N. *Begin:* Sir; or Dear Commander _____; but for officers below the rank of commander, Dear Mr. _____.

Nun. See *Sister of a Religious Order*, listed below.

Papal Nuncio or Internuncio or Apostolic Delegate. Address: His Excellency, The Papal Nuncio (or Internuncio or Apostolic Delegate) to _____. *Begin:* Your Excellency.

Patriarch (Eastern Church). Address: His Beatitude the Patriarch of _____; or His Beatitude the Lord _____, Patriarch of _____. *Begin:* Most Reverend Lord; or Your Beatitude.

Pope. Address: To His Holiness Pope _____. *Begin:* Most Holy Father; or Your Holiness.

President of a College or University. Address: _____, LL.D. (or if he is not an LL.D., use the initials of his highest degree), President of _____ University; or President, _____ University. If he is a clergyman, address as Reverend _____, LL.D., President of _____ University. *Begin:* Dear Sir; or Dear President _____.

President of a Theological Seminary. Address: The Rev. President _____. *Begin:* Dear Sir; or Dear President _____.

President of State Senate. Address: The Honorable _____, President of the Senate of _____. *Begin:* Sir.

President of the Senate of the U. S. Address: The Honorable, The President of the Senate of the U. S.; or The Honorable _____, President of the Senate. *Begin:* Sir.

President of the U. S. Address: The President, The White House. *Begin:* Mr. President; or The President; or My dear Mr. President.

Priest (Roman Catholic Church). Address: Reverend _____, O.S.M. (or other initials of his order). *Begin:* Dear Father _____ (religious name).

Prime Minister of Canada. Address: The Right Honourable _____, P.C., Prime Minister of Canada. *Begin:* Sir.

Prince of the Blood Royal. Address: His Royal Highness Prince _____. *Begin:* Sir.

Prince of Wales. Address: His Royal Highness The Prince of Wales. *Begin:* Sir; or May it please your Royal Highness.

Princess of the Blood Royal. Address: Her Royal Highness the Princess _____ (Christian name). *Begin:* Madam.

Privy Councillor (British Imperial). Address: To The Right Honourable _____. P.C. *Begin:* Sir. Note.—If other titles are used, they should come after *The Right Honourable*; as, The Right Honourable Sir John _____.

Privy Councillor (of Canada). Address: The Honourable _____. *Begin:* Sir.

Professor in a College or University. Address: Professor _____, or _____, Ph.D. (or LL.D., M.D., etc., using only the initials of his highest degree, if the degrees are in the same field), Professor of _____. *Begin:* Dear Sir; or My dear Professor.

Professor in a Theological Seminary. Address: The Reverend Professor _____. *Begin:* or The Rev. _____, D.D. *Begin:* Dear Sir; or Dear Professor _____.

Queen. Address: The Queen's Most Excellent Majesty; or Her Gracious Majesty, The Queen. *Begin:* Madam; or May it please your Majesty.

Queen Mother. Address: Her Gracious Majesty Queen _____. *Begin:* Madam; or May it please your Majesty.

Rabbi. Address: Rabbi _____. *Begin:* or The Rev. _____. *Begin:* Reverend Sir; or My dear Rabbi _____. (If he holds a doctor's degree, Dr. may be substituted for Rabbi.)

Rector of a Religious House or of a Seminary. Address: The Very Reverend _____, O.S.B. (or other initials of order), Rector, Brothers of St. Francis. *Begin:* Very Reverend and dear Father (or Brother).

Representative. See *Congressman*, above.

Senator (U. S.) Address: The Honorable _____, the U. S. Senate, Washington, D. C. *Begin:* Dear Sir; or My dear Senator.

Sister of a Religious Order. Address: Sister _____, (followed by the initials of the order). *Begin:* Dear Sister; or My dear Sister _____.

Speaker of the House of Commons (Canada). Address: The Honourable _____. The Speaker of the House of Commons. *Begin:* Dear Mr. Speaker.

Speaker of the House of Representatives of the U. S. Address: The Honorable _____, Speaker of the House of Representatives. *Begin:* Sir; or My dear Mr. Speaker.

State Senator. Like Senator (U. S.).

Undersecretary of State (U.S.A.). Address: The Undersecretary of State; or The Honorable _____, Undersecretary of State. *Begin:* Sir; or Dear Mr. _____.

Vice-President. Address: The Vice-President; or The Honorable _____, Vice-President of the U. S. *Begin:* Mr. Vice-President; or Sir.

Viscount. Address: The Right Honourable the Viscount _____. *Begin:* or The Viscount _____. *Begin:* My Lord.

Viscountess. Address: The Right Honourable the Viscountess _____. *Begin:* or The Viscountess _____. *Begin:* Madam.

Widow. Address: Ordinarily address by her former title; as, Mrs. John Smith, not Mrs. Mary Alice Smith, unless the latter form is preferred by the person herself.

THE UNITED STATES



STATES, TERRITORIES AND CITIES

(State flower, bird, etc. are official unless otherwise indicated; dates in parentheses are those of adoption. Area is total of land and inland water. Estimated population figures for 1958 are as of July 1 and are provisional. Largest cities include incorporated places only.)

ALABAMA

Capital: Montgomery.
Governor: John Patterson, Dem. (to Jan. 1963).
Organized as territory: Mar. 3, 1817.
Entered Union & (rank): Dec. 14, 1819 (22).
Seceded from Union: Jan. 11, 1861.
Re-entered Union: July 13, 1868.
Present constitution adopted: 1901.
Motto: *Audemus fura nostra defendere* (We dare defend our rights).
State flower: Goldenrod (1927).
State bird: Yellowhammer (1927).
State song: "Alabama" (1931).
State tree: Southern pine (longleaf) (1949).
Nickname: Yellowhammer State.
Origin of name: May come from Choctaw meaning "thicket-clearers" or "vegetarian-gatherers."
1940 population & (rank): 2,832,961 (17).
1950 population & (rank): 3,061,743 (17).
1958 estimated population: 3,211,000.
Area & (rank): 51,609 sq. mi. (29).
Geographic center: In Chilton Co., 12 mi. SW of Clanton.
Number of counties: 67.
Largest cities (1950 Census): Birmingham (326,037); Mobile (129,009); Montgomery (106,525); Gadsden (55,725); Tuscaloosa (46,396).
State forests: 6 (14,248.58 ac.).
State parks: 34 (39,619.6 ac.).
Total gross tax receipts (1956-57): \$618,203,837.
Total gross tax disbursements (1956-57): \$624,466,789.

Alabama is the leading heavy-industry state in the South. Textiles, iron and steel, and sawmill products lead its manufacturing, which centers around the "Pittsburgh of the South"—Birmingham. Industry is growing rapidly in other areas, including the Tennessee River Valley, with its great Muscle Shoals power plant. Lumber, marble, dolomite and petroleum are other important products. Alabama ranks high in the production of cotton, cattle, corn, hay, nuts, broiler chickens and sweet potatoes.

At Tuskegee Institute, founded by Booker T. Washington, Dr. George Washington Carver carried out his famed agricultural research.

The Confederacy was founded at Montgomery in Feb. 1861, and for a time the city was the Confederate capital.

In 1540, Hernando de Soto and his treasure seekers were the first white men to see the state, although Cabeza de Vaca may have preceded him in 1528.

ALASKA

Capital: Juneau.
Governor: William A. Egan, Dem. (to Jan. 1963).
Organized as territory: 1912.
Entered Union & (rank): Jan. 3, 1959 (49).
Constitution ratified: April 24, 1956.
Motto: None.
State flower: Forget-me-not.
State bird: Willow ptarmigan.
State song: "Alaska's Flag."
Nickname: Commonly called "The Last Frontier."
Origin of name: Corruption of native word meaning "great country."
1939 population: 72,524.
1950 population: 128,643.
1939-50 population change: +77.4%.
1957 estimated population: 211,000.
Area & (rank): 586,400 sq. mi. (1).
Geographic center: 95 mi. south of Ft. Gibbon.
Number of counties: State to have boroughs; number not decided by first legislature.
Largest cities (estimated 1957): Anchorage (31,000); Fairbanks (10,050); Ketchikan (7,500); Juneau (7,100).
State forests: None.
State parks: None.
General revenue (1957-58): \$19,478,783.
General expenditure (1957-58): \$20,930,998.

Alaska, newest and largest of the states, was called "Seward's Folly" in 1867, when that Secretary of State arranged for its purchase from Russia for \$7,200,000. Since then Alaska has returned approximately \$3,500,000,000 worth of products to the U. S.

Canned salmon is Alaska's principal product. It mines gold, supplies all domestically mined U. S. tin and also turns out platinum, coal, antimony, silver, mercury, tungsten and chromium.

The Pribilof Islands, in the Bering Sea, are famous as the breeding ground of the Alaska fur seal, which is under careful government control. Beaver, muskrat, otter, mink and other furs also abound. Alaska's first pulp mill at Ketchikan, constructed at a cost of \$54 million, began operation in 1954.

Mt. McKinley, in the south central part, is 20,300 feet high, the tallest peak in North America. With its wild interior, still partly unexplored, the state is a hunter's paradise. With one person for every four and a half square miles in 1950, Alaska is by far the most thinly settled of the states. Sitka was its capital until 1912.

Alaska has magnificent glaciers and active volcanoes. Winter temperatures in the

interior have been known to register 78° below zero. However, summer temperatures in the same area have been recorded at 99° above zero; and large parts of the state, especially in the southeast, enjoy mild climate in both summer and winter.

The Aleutians include the following island groups (and major islands): Fox Islands (Unimak, Akutan, Unalaska, Umnak); Islands of the Four Mountains (Chuginadak, Kagamil, Carlisle, Herbert); Andreanof Islands (Atka, Tanaga, Adak, Kanaga); Rat Islands (Kiska, Amchitka, Semisopochnoi, Rat); Near Islands (Agattu, Attu). In June 1942, the Japanese occupied Attu and Kiska. However, Attu was retaken by the U. S. in May 1943; Kiska was evacuated by the Japanese in Aug. 1943 after extensive shelling and bombing of the island.

Vitus Bering, a Dane working for the Russians, and Alexei Chirikov discovered Alaska and the Aleutians in 1741.

ARIZONA

Capital: Phoenix.

Governor: Paul Fannin, Rep. (to Jan. 1961).

Organized as territory: Feb. 24, 1863.

Entered Union & (rank): Feb. 14, 1912 (48).

Present constitution adopted: 1911.

Motto: *Ditat Deus* (God enriches).

State flower: Flower of saguaro cactus (1931).

State bird: Cactus wren (1931).

State colors: Blue and old gold (1915).

State song: "Arizona," a march song (1919).

State tree: Palo Verde (1957).

Nickname: Grand Canyon State.

Origin of name: From the Indian "Arizonac," meaning "little spring."

1940 population & (rank): 499,261 (43).

1950 population & (rank): 749,587 (37).

1958 estimated population: 1,140,000.

Area & (rank): 113,909 sq. mi. (6).

Geographic center: In Yavapai Co., 55 mi. SE of Prescott.

Number of counties: 14.

Largest cities (1950 Census): Phoenix (106,818); Tucson (45,454); Mesa (16,790); Douglas (9,442); Yuma (9,145).

State forests: None.

State parks: 1 dedicated; 2 selected but not dedicated.

State revenue (1957-58): \$316,488,533.

State expenditure (1957-58): \$242,342,487.

Manufacturing now ranks first among Arizona's revenue-producing industries. Next in rank is the mining of copper, gold, vanadium, uranium and silver, the production of copper exceeding that of any other state.

Agriculture is the third largest revenue-producing industry. By means of irrigation, its once arid acres produce alfalfa, cotton, wheat, sorghum, vegetables, citrus fruits and dates. Income from livestock ranks high from both range and feeder cattle.

Phoenix is a popular health and winter resort and a shipper of cotton and vegetables, Tucson is a winter resort, Douglas loads cattle and smelts copper, and Yuma is an agricultural center.

With the Hopi, Navajo (the largest in numbers) and Apache tribes, Arizona has

the largest U. S. Indian population, spread over fourteen reservations. It also has some of the country's most famous scenery. In the north is the Grand Canyon; in the east are the Petrified Forest and Painted Desert.

Marcos de Niza, a Franciscan friar, entered the state in 1539 in search of the mythical Seven Cities of Cibola, and was followed a year later by Coronado.

ARKANSAS

Capital: Little Rock.

Governor: Orval Faubus, Dem. (to Jan. 1961).

Organized as territory: Mar. 2, 1819.

Entered Union & (rank): June 15, 1836 (25).

Seceded from Union: May 6, 1861.

Re-entered Union: June 22, 1868.

Present constitution adopted: 1874.

Motto: *Regnat populus* (The people rule).

State flower: Apple Blossom (1901).

State tree: Pine (1939).

State bird: Mockingbird (1929).

State song: "The Arkansas Traveler" (1949).

Nickname: Land of Opportunity.

Origin of name: From the Quapaw Indians.

1940 population & (rank): 1,949,387 (24).

1950 population & (rank): 1,909,511 (30).

1958 estimated population: 1,766,000.

Area & (rank): 53,102 sq. mi. (27).

Geographic center: In Pulaski Co., 12 mi. N of W of Little Rock.

Number of counties: 75.

Largest cities (1950 Census): Little Rock (102,213); Fort Smith (47,942); North Little Rock (44,097); Pine Bluff (37,162); Hot Springs (29,307).

State forests: None.

State parks: 13 (19,079 ac.).

State general & special revenue (1957-58): \$144,395,818.

State general expenditure (1957-58): \$222,450,166.

About 90 per cent of the nation's bauxite—the source of aluminum—comes from the earth of Arkansas, which also contains North America's only known diamond mine, located in Pike County near Murfreesboro, and presently used as a tourist attraction on a "finders-keepers" basis.

The state is almost equally divided between mountains and delta areas. Arkansas has an equable southern climate and fertile central valleys which grow cotton, rice, wheat, corn, oats, potatoes and fruit. Other industries are oil production, lumbering and production of whetstones and antimony ore.

Hot Springs entertains fifteen times its population in guests each year. Its forty-seven famous curative mineral springs, the only ones administered by the Federal Government, are in Hot Springs National Park in the Ouachita Mountains. Pine Bluff has the largest archery factory in the country.

CALIFORNIA

Capital: Sacramento.

Governor: Edmund G. Brown, Dem. (to Jan. 1963).

Entered Union & (rank): Sept. 9, 1850 (31).

Present constitution adopted: 1879.

Motto: *Eureka* (I have found it).

State flower: Golden poppy (1903).
 State tree: California redwoods (*Sequoia sempervirens* & *Sequoia gigantea*) (1937 & 1953).
 State bird: California valley quail (1931).
 State animal: California grizzly bear (1953).
 State fish: California golden trout (1947).
 State insect: California dog-face butterfly (unofficial).
 State colors: Blue and gold (1951).
 State song: "I Love You, California" (1951).
 Nickname: Golden State.
 Origin of name: From a book, *Amadis de Gaula*, by García Ordóñez de Montalvo, c. 1500.
 1940 population & (rank): 6,907,387 (5).
 1950 population & (rank): 10,586,223 (2).
 1958 estimated population: 14,337,000.
 Area & (rank): 158,693 sq. mi. (3).
 Geographic center: In Madera Co., 35 mi. NE of Madera.
 Number of counties: 58.
 Largest cities (1950 Census): Los Angeles (1,970,358); San Francisco (775,357); Oakland (384,575); San Diego (334,387); Long Beach (250,767).
 State forests: 8 (70,235 ac.).
 State parks and beaches: 146 (600,000 ac.).
 State general revenue (1958-59 estimated): \$1,141,058,368.
 State general expenditure (1958-59 estimated): \$1,288,596,656.

California earns more money from raising food and catching fish than any other state, and it stands high in oil production, lumbering and manufacturing. It has more motor vehicles than any other state or any foreign country. Out-of-state tourist visitors and the travel and recreation expenditures of the state's residents continue to play an important part in the expansion of trade and employment opportunities. Irrigation makes possible the production of more than 200 commercial crops.

Nature is spectacular. Death Valley, in the southeast, is 282 feet below sea level, the lowest spot in the nation; Lassen Peak is the only active U. S. volcano outside of Alaska and Hawaii, although its last eruptions were recorded in the years from 1914 to 1917; the General Sherman Tree in Sequoia National Park is estimated to be about 3,500 years old; and a stand of bristlecone pine trees in the White Mountains is estimated to be over 4,000 years old. San Pedro is the world's largest man-made harbor, and the Bank of America National Trust and Savings Association, founded by the Glanville family, is the largest privately owned bank in the world.

Gold, which was responsible for the state's settlement boom, is still found here, but the state's most important mineral products today are oil, natural gas and its liquids, cement, miscellaneous stones, borates, and mercury.

California is a leader in electrical energy, and its cities specialize in aircraft and parts, missiles, food processing, electrical and electronic equipment, machinery and fabricated metal products.

The San Francisco-Oakland and Golden

Gate bridges are among the world's engineering marvels.

Juan Rodríguez Cabrillo, Portuguese navigator, was probably the first white man to see the state in 1542.

COLORADO

Capital: Denver.
 Governor: Stephen L. R. McNichols, Dem. (to Jan. 1963).
 Organized as territory: Feb. 28, 1861.
 Entered Union & (rank): Aug. 1, 1876 (38).
 Present constitution adopted: 1876.
 Motto: *Nil sine Numine* (Nothing without Providence).
 State flower: Rocky Mountain columbine (1899).
 State tree: Colorado blue spruce (1939).
 State bird: Lark bunting (1931).
 State colors: Blue and white (1911).
 State song: "Where the Columbines Grow" (1915).
 Nickname: Centennial State.
 Origin of name: From the Spanish, meaning "red."
 1940 population & (rank): 1,123,296 (33).
 1950 population & (rank): 1,325,089 (34).
 1958 estimated population: 1,711,000.
 Area & (rank): 104,247 sq. mi. (8).
 Geographic center: In Park Co., 30 mi. NW of Pikes Peak.
 Number of counties: 63.
 Largest cities (1950 Census): Denver (415,786); Pueblo (63,685); Colorado Springs (45,472); Greeley (20,354); Boulder (19,999).
 State forests: 1. (70,980 ac.).
 Total state revenue (1958): \$365,920,645.
 Total state expenditure (1958): \$365,080,733.

Colorado has the highest mean elevation of any state, with 54 of its peaks over 14,000 feet in height and more than 1,000 going beyond the 10,000-foot mark. It began as a miner of gold but has been predominantly agricultural in recent times. Livestock, wheat, hay, beans, sugar beets, corn, potatoes, barley, and truck vegetables head the crop list. Like California and Arkansas, the state has a highly developed irrigation system to counteract its dry climate and promote farming.

Colorado is one of the nation's largest producers of uranium and vanadium; also mined are gold, silver, lead, zinc, copper, molybdenum, coal and several nonmetallics. The state is also a leading oil producer.

Pueblo, the "Pittsburgh of the West," makes iron, steel, brick, tile and foundry products. Colorado Springs is perhaps the most popular tourist center in the Rocky Mountain sector. Mount Evans Highway is the highest auto road in North America. The world's highest suspension bridge stretches 1,053 feet over the Royal Gorge of the Arkansas River. Summit Lake, 12,740 feet high, near the top of Mt. Evans, is the highest lake in the U. S. reached by an auto road.

Of archeological interest are the cliff dwellings located in the southwestern part of the state.

Coronado entered the state in 1540.

CONNECTICUT

Capital: Hartford.
Governor: Abraham A. Ribicoff, Dem. (to Jan. 1963).
Entered Union & (rank): Jan. 9, 1788 (5).
Present constitution adopted: 1818; revised effective 1955.
Motto: *Qui transtulit sustinet* (He who transplanted still sustains).
State flower: Mountain laurel (1907).
State tree: White oak (1947).
State bird: American robin (1943).
State song: None.
Nicknames: Constitution State; Nutmeg State; Land of Steady Habits.
Origin of name: From an Indian word meaning "beside the long tidal river."
1940 population & (rank): 1,709,242 (31).
1950 population & (rank): 2,007,280 (28).
1958 estimated population: 2,316,000.
Area & (rank): 5,009 sq. mi. (48).
Geographic center: In Hartford Co., at East Berlin.
Number of counties: 8.
Largest cities (1950 Census): Hartford (177,397); New Haven (164,443); Bridgeport (158,709); Waterbury (104,477); Stamford (74,293).
State forests: 26.
State parks: 72.
State general revenue (1958): \$579,764,910.
State general expenditure (1958): \$580,191,850.

Connecticut earned its sobriquet, the "Arsenal of the Nation," by its ability to turn out firearms and ammunition in early days, and from this developed an ability to turn out precision instruments of all classes.

Connecticut's cities produce a variety of products, some of which are: arms, sewing machines, airplanes, typewriters, motors, hardware, cutlery, tools, clocks, locks, pottery, machinery, brass products and hats. Hartford, which has the oldest U. S. newspaper still being published—the *Courant*, established 1764—is the insurance capital of the nation.

Connecticut devotes its farmland mainly to dairying, fruit growing and poultry raising. It stands high in tobacco growing and no crop in the nation receives as high a price per acre as her shade-grown tobacco.

The state is a popular resort area both for its beaches on Long Island Sound and for its inland lakes and forested hills. The southwest part of the state is a suburban area of New York City.

Connecticut was the first state to have a written constitution, the *Fundamental Orders*, adopted by three original towns of Colonial days in Jan. 1639.

DELAWARE

Capital: Dover.
Governor: J. Caleb Boggs, Rep. (to Jan. 1961).
Entered Union & (rank): Dec. 7, 1787 (1).
Present constitution adopted: 1897.
Motto: Liberty and Independence.
State colors: Colonial blue and buff.
State flower: Peach blossom.
State tree: American holly.
State bird: Blue hen chicken.
State song: "Our Delaware."

Nicknames: Diamond State; First State.
Origin of name: In honor of Sir Thomas West, Lord De La Warr.
1940 population & (rank): 266,505 (46).
1950 population & (rank): 318,085 (46).
1958 estimated population: 454,000.
Area & (rank): 2,399.2 sq. mi. (49).
Geographic center: In Kent Co., 11 mi. S of Dover.
Number of counties: 3.
Largest cities (1950 Census): Wilmington (110,356); Newark (6,731); Dover (6,223); New Castle (5,396); Elsmere (5,314).
State forests: 6 (4,945 ac.).
State parks: 3.
State general revenue (fiscal 1958): \$56,910,153.
State general expenditure (fiscal 1958): \$64,276,106.

Little Delaware, at the lowest mean elevation of any state, grows a great variety of small fruit and vegetables and is a U. S. pioneer in the industry of food canning. Peaches, strawberries, apples, corn, wheat, lima beans, asparagus, tomatoes and hay are the leading crops. Fishing in the bay is an important industry. Delaware's chicken farms are one of the great supply sources for the big markets of the East.

Manufactures in Delaware include chemicals, vulcanized fiber, glazed kid and morocco leathers, textiles, paper, dental supplies, metal products, machinery, machine tools and transportation equipment of every major type. In 1844, the *Bangor*, the first iron seagoing propeller-type vessel constructed in the U. S., was launched at Wilmington.

Delaware was the first state to ratify the U. S. Constitution, on Dec. 7, 1787. During the Civil War, although a slave state, Delaware refused to secede from the Union; the southern part of the state, however, supplied many supporters to the Confederacy.

Henry Hudson discovered Delaware Bay in his exploration of 1609. First settlers in the state were Dutchmen, who arrived in 1631, but who were shortly afterwards massacred by the Indians.

DISTRICT OF COLUMBIA

(City of Washington)

Land ceded to Congress: 1788 by Maryland; 1789 by Virginia (retroceded to Virginia Sept. 7, 1846).
Seat of government transferred to D. C.: Dec. 1, 1800.
Created municipal corporation: Feb. 21, 1871.
Present form of government established: June 11, 1878.
President of Board of Commissioners: Robert E. McLaughlin.
Motto: *Justitia omnibus* (Justice to all).
Official flower: American beauty rose.
Origin of name: In honor of Columbus.
1940 population & (rank as city): 663,091 (11).
1950 population & (rank as city): 802,178 (9).
1958 estimated population: 825,000.
Area: Land, 60.41 sq. mi.; inland water, 7.84.
Geographic center: Near corner of Fourth and L Sts., NW.
Altitude: Highest, 420 ft.; lowest, sea level.

Location: Between Virginia and Maryland, on Potomac River.

Churches: Protestant, 451; Roman Catholic, 41; Jewish, 16; others, 10.

City parks: 780 (6,945.5 ac.).

Telephones (May 31, 1959): 608,912.

Radio sets: 582,793.

Television sets: 402,046.

Radio stations: AM, 7; FM, 8.

Television stations: 4.

Assessed valuation (June 1959): \$3,312,198,062.

City tax rate (1957): \$2.30 per \$100.

Bonded debt: None.

Revenue (1958): \$201,600,000.

Expenditures (1958): \$205,400,000.

The District of Columbia—identical with the City of Washington—is the capital of the U. S. and the first carefully planned capital in the world.

D. C. history began in 1790 when Congress directed selection of a new capital site, 10 miles square, along the Potomac. When the site was determined, it included thirty and three-quarters square miles on the Virginia side of the river. In 1846, however, Congress returned that area to Virginia.

The city was planned and partly laid out by Major Pierre Charles L'Enfant, a French engineer. This work was perfected and completed by Major Andrew Ellicott. In 1814, during the war of 1812, a British force fired the capital, and it was from the white paint applied to cover fire damage that the President's home came to be called the White House.

Washington's skyline is dominated by the Capitol and the Washington Monument, towering 555 feet. The Capitol, while not in the city center, is the key to the street address system. The city is laid out in rectangular blocks, created by streets intersecting at right angles. In addition, diagonal arteries fan out from various centers. Pennsylvania Avenue—the radial lines are generally named for the states—is the most famous of them, with the White House at number 1600.

The Capitol is 751 feet long and 350 feet wide. It has 431 rooms. The two wings, constructed of marble, house the Senate and the House; and the central part of the building contains the Rotunda, the Statuary Hall and the old Supreme Court chamber. Visitors may go through the building from 9 A.M. until 4:30 P.M. Congress normally convenes at noon, and the floor of the Senate and House must be cleared by 11:45 A.M. The galleries in the Senate and House chambers are open to visitors during sessions.

Washington has many other famous buildings and monuments—the Library of Congress, Jefferson Memorial, Lincoln Memorial, Grant Memorial, Tomb of the Unknown Soldier (Arlington Cemetery), Treasury Building, the Pentagon, Petersen House (where Lincoln died) and scores of others.

Washington is administered by three commissioners appointed by the President of the U. S. Two must have been civilian residents of the District for at least three years before their appointment. They are confirmed

by the Senate and serve terms of three years each. The other commissioner is detailed from time to time from the Corps of Engineers of the U. S. Army. He must be a captain or of higher grade and must have served at least fifteen years in the Corps.

FLORIDA

Capital: Tallahassee.

Governor: LeRoy Collins, Dem. (to Jan. 1961).

Organized as territory: Mar. 30, 1822.

Entered Union & (rank): Mar. 3, 1845 (27).

Seceded from Union: Jan. 10, 1861.

Re-entered Union: June 25, 1868.

Present constitution adopted: 1885.

Motto: In God we trust.

State flower: Orange blossom (1909).

State bird: Mockingbird (1927).

State song: "Suwannee River" (1935).

Nickname: Sunshine State.

Origin of name: From the Spanish, meaning "feast of flowers" (Easter).

1940 population & (rank): 1,897,414 (27).

1950 population & (rank): 2,771,305 (20).

1958 estimated population: 4,442,000.

Area & (rank): 58,666 sq. mi. (22).

Geographic center: In Citrus Co., 12 mi. W of N of Brooksville.

Number of counties: 67.

Largest cities (1950 Census): Miami (249,276);

Jacksonville (204,517); Tampa (124,681);

St. Petersburg (96,738); Orlando (52,367).

State forests: 4 (204,035 ac.).

State parks: 23 (74,936 ac.).

State government receipts (1957-58): \$632,908,-089.

State government expenditures (1957-58): \$963,-396,862.*

* Includes Federal and interfund transfers.

Industry and agriculture are Florida's biggest pursuits, but hotel statistics point to its chief fame—resorts and tourists. Along its coastline, dozens of communities more than double in population during the winter season when northerners flee snow and cold.

Oranges and grapefruit lead Florida's crop list, then come tomatoes, tobacco, beans, celery, potatoes and field corn. Truck gardening, commercial fishing and cattle are leading industries. Deep-sea fishing for sport is a leading tourist hobby. Industry is becoming increasingly important, with metal-working and chemicals now added to lumber, paper and citrus processing. Tampa is one of the largest cigar manufacturers and Jacksonville ships lumber and turpentine.

Florida's low elevation is dotted by some 30,000 small lakes and the Everglades National Park in the south. St. Augustine, founded in 1565, is the oldest town of European origin in the U. S. Key West, exclusive resort city, is connected to the mainland by a unique causeway.

In 1513, Ponce de León, seeking the mythical "Fountain of Youth," was the first white man to see the state.

GEORGIA

Capital: Atlanta.

Governor: Ernest Vandiver, Dem. (to Jan. 1963).

Entered Union & (rank): Jan. 2, 1788 (4).

Seceded from Union: Jan. 19, 1861.
 Re-entered Union: July 15, 1870.
 Present constitution adopted: 1945.
 Motto: Wisdom, justice and moderation.
 State flower: Cherokee rose (1916).
 State tree: Live oak (1937).
 State bird: Brown thrasher (1935).
 State song: "Georgia" (1922).
 Nicknames: Peach State; Empire State of the South.
 Origin of name: In honor of George II of England.
 1940 population & (rank): 3,123,723 (14).
 1950 population & (rank): 3,444,578 (13).
 1958 estimated population: 3,818,000.
 Area & (rank): 58,876 sq. mi. (21).
 Geographic center: In Twiggs Co., 18 mi. SE of Macon.
 Number of counties: 159.
 Largest cities (1950 Census): Atlanta (331,314); Savannah (119,638); Columbus (79,611); Augusta (71,508); Macon (70,252).
 State forests: 25,178,962 ac.
 State parks: 41 (60,794 ac.) (33 in operation).
 State general revenue (1958): \$465,080,000.
 State general allocations (1958): \$469,140,900.

Georgia is typical of the changing South. The value of its factory products has passed the value of its farm products, and industrialization is ever increasing. Atlanta is achieving importance as an industrial center. Cotton and lumber products, fertilizer, processed food and a great variety of other items are among the factory output of Macon, Augusta, Savannah and Columbus.

Georgia ranks high in cotton, tobacco, peanuts and pecans. Georgia's peaches are nationally famous. From its vast stands of pine come more than half of all U. S. resin and turpentine. The state is one of the leaders in the value of its clay products. Cattle grazing is extensive. Georgia marble is widely used.

Warm Springs has the celebrated foundation operated to aid infantile paralysis victims. It was there that President Franklin D. Roosevelt died on April 12, 1945.

Hernando de Soto, a Spaniard, in 1540, looked over the red clay of Georgia, and General James Oglethorpe founded its first British colony February 12, 1733, at Savannah.

HAWAII

Capital: Honolulu (on Oahu).
 Governor: William F. Quinn, Rep.
 Organized as territory: 1900.
 Entered Union & (rank): Aug. 21, 1959 (50).
 Motto: *Ua Mau Ke Ea O Ka Aina I Ka Pono* (The life of the land is perpetuated in righteousness).
 State flower: Hibiscus.
 State song: "Hawaii Pono!" (unofficial).
 State bird: Nene (Hawaiian goose).
 Nickname: Aloha State.
 Origin of name: Uncertain. The islands may have been named by Hawaii Loa, their traditional discoverer. Or they may have been named after Hawaii or Hawaiki, the traditional home of the Polynesians.
 1940 population: 423,300.
 1950 population: 499,794.

1940-50 population change: +18.1%.
 1959 estimated civilian population: 585,025.
 Area & (rank): 6,423 sq. mi. (47).
 Counties: 4.
 Largest cities (1950 Census): Honolulu (248,034); Hilo (27,198); Wahiawa (8,369); Kailua-Lanikai (7,740); Wailuku (7,424).
 State parks: 13.
 State revenue (fiscal 1958): \$119,235,125.
 State expenditure (fiscal 1958): \$108,588,624.

Hawaii, 2,100 miles west-southwest of San Francisco, is a 390-mile chain of islets and 8 main islands—Hawaii, Kahoolawe, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau. Kure (Ocean) Island, an uninhabited islet in the Leeward Islands, is administratively part of Hawaii.

Hawaii's temperature is mild and the soil is fertile for tropical fruits and vegetables. Cane sugar and pineapple are its chief products, approximately 75% of the world's canned pineapple being produced in the islands. Hawaii also grows coffee, rice, bananas, nuts and potatoes. Some livestock and poultry are raised. The tourist business is Hawaii's fourth largest source of income.

Hawaii's highest peak, Mauna Kea, rises to 13,796 feet and is, in a sense, the world's highest mountain since it springs from an ocean floor 18,000 feet below sea level.

Hawaii was discovered in 1778 by Captain James Cook, who named it the Sandwich Islands. It was ruled by native monarchs until 1893, thereafter as a republic until 1898, when it ceded itself to the U. S.

IDAHO

Capital: Boise.
 Governor: Robert E. Smylie, Rep. (to Jan. 1963).
 Organized as territory: Mar. 3, 1863.
 Entered Union & (rank): July 3, 1890 (43).
 Present constitution adopted: 1890.
 Motto: *Esto perpetua* (It is perpetuated).
 State flower: Syringa (1931).
 State tree: White pine (1935).
 State bird: Mountain bluebird (1931).
 State song: "Here We Have Idaho."
 Nicknames: Gem State; Gem of the mountains.
 Origin of name: From a Shoshoni Indian word meaning "sunup."
 1940 population & (rank): 524,873 (42).
 1950 population & (rank): 588,637 (43).
 1958 estimated population: 662,000.
 Area & (rank): 83,557 sq. mi. (13).
 Geographic center: In Custer Co., 24 mi. S of Challis.
 Number of counties: 44, plus small part of Yellowstone Park.
 Largest cities (1950 Census): Boise (34,393); Pocatello (26,131); Idaho Falls (19,218); Twin Falls (17,600); Nampa (16,185); Lewiston (12,985).
 State forests: 925,000 ac.
 State parks: 4 (9,000 ac.).
 State revenue (1955-57): general fund, \$52,474,893; special funds, \$223,808,239.
 State expenditure (1955-57): general fund, \$51,281,791; special funds, \$222,066,426.

Idaho's huge investment in irrigation has advanced its agriculture well ahead of its mining. Idaho potatoes are eaten everywhere. The state grows apples and other fruits and wheat, corn and barley. There is light diversified manufacturing and Pocatello sells its cheese to a world market.

Idaho mines gold, silver, lead, zinc, copper and tungsten, and still has vast undeveloped mineral wealth. In its rugged central mountains is an area that is reachable only by pack horse. The forests of the state, covering at least one-third of the area, account for the fact that lumbering is extensive.

Tourist trade is important. Hunting and fishing are excellent. Sun Valley is a famed resort and attracts countless tourists to its swimming and skiing facilities.

ILLINOIS

Capital: Springfield.

Governor: William G. Stratton, Rep. (to Jan. 1960).

Organized as territory: Feb. 3, 1809.

Entered Union & (rank): Dec. 3, 1818 (21).

Present constitution adopted: 1870.

Motto: State sovereignty, national union.

State flower: Violet (1908).

State tree: Oak (1908).

State bird: Cardinal (1929).

State song: "Illinois" (1925).

State slogan: Land of Lincoln.

Nickname: Prairie State.

Origin of name: From an Indian word and French suffix meaning "tribe of superior men."

1940 population & (rank): 7,897,241 (3).

1950 population & (rank): 8,712,176 (4).

1958 estimated population: 9,889,000.

Area & (rank): 56,400 sq. mi. (24).

Geographic center: In Logan Co., 28 mi. NE of Springfield.

Number of counties: 102.

Largest cities (1950 Census): Chicago (3,620,-

962); Peoria (111,856); Rockford (92,927);

East St. Louis (82,295); Springfield (81,628).

State forests: 3 (10,278 ac.).

State parks, memorials, conservation areas: 74 (37,447 ac.).

State revenue (1958): \$1,142,792,631.

State expenditure (1958): \$1,097,517,639.

Illinois anchors the Midwest like a rich giant, versatile in every big wealth-making industry. It stands high in manufacturing, coal mining, farm cash income, oil production. The sprawling Chicago district (including a slice of Indiana) is a great iron and steel producer, meat packer, grain exchange and railroad center. Chicago is also a busy long-flight airport city and Great Lakes port area. The Illinois sand and gravel business is exceeded only by that of California.

In agriculture, Illinois is first in soy beans and high in corn, oats, wheat, barley, rye, potatoes and truck vegetables. Hog raising and dairying are important industries of the state.

Illinois manufactures almost everything. Railroad cars, clothing, furniture, tractors, liquor, watches and farm implements are some of the items made in several of its

cities. An important U. S. arsenal is located on a Mississippi island off Rock Island.

Central Illinois is noted for shrines and memorials associated with the life and works of Abraham Lincoln, greatest son of Illinois. In Springfield are the Lincoln Home and Lincoln Tomb. At New Salem State Park, 20 miles northwest of Springfield, the reconstructed village of New Salem stands as a notable Lincoln memorial.

INDIANA

Capital: Indianapolis.

Governor: Harold W. Handley, Rep. (to Jan. 1961).

Organized as territory: May 7, 1800.

Entered Union & (rank): Dec. 11, 1816 (19).

Present constitution adopted: 1851.

Motto: The Crossroads of America.

State flower: Peony (1957).

State tree: Tulip tree (1931).

State bird: Cardinal (1933).

State song: "On the Banks of the Wabash, Far Away" (1913).

Nickname: Hoosier State.

Origin of name: Meaning "land of Indians."

1940 population & (rank): 3,427,796 (12).

1950 population & (rank): 3,934,224 (12).

1958 estimated population: 4,581,000.

Area & (rank): 36,291 sq. mi. (38).

Geographic center: In Boone Co., 14 mi. W of N of Indianapolis.

Number of counties: 92.

Largest cities (1950 Census): Indianapolis (427,-

173); Gary (133,911); Ft. Wayne (133,607);

Evansville (128,636); South Bend (115,911).

State forests: 14 (113,880.46 ac.).

State parks: 18 (47,386.43 ac.).

State general revenue (1956-57): \$467,809,000.

State general expenditure (1956-57): \$486,478,-

000.

Indiana's fifty-one-mile Michigan waterfront is one of the great industrial centers of the world, turning out iron and steel and oil products to make this state a leader in manufacturing. Its cities have some of the world's largest industrial plants and their great output is further swelled by the inland factories. The list of products is endless—automobiles, farm implements, aviation and railroad equipment, sewing machines are made from iron ore mined in the Great Lakes region.

In farming the state stands high in soy beans, corn, tobacco, onions, wheat, oats, rye and tomatoes.

Indianapolis is the second largest U. S. city not on a navigable body of water. Wyandotte Cave, the second largest in the U. S., is located in Crawford County of Southern Indiana. West Baden and French Lick are well known for their mineral springs. Indiana was one of the early states to adopt the secret ballot based on the Australian system.

IOWA

Capital: Des Moines.

Governor: Herschel C. Loveless, Dem. (to Jan. 1961).

Organized as territory: June 12, 1838.

Entered Union & (rank): Dec. 28, 1846 (29).

Present constitution adopted: 1857.

Motto: Our liberties we prize and our rights we will maintain.

State flower: Wild rose (1897).

State bird: Eastern goldfinch (1933).

State colors: Red, white and blue (in state flag).

State song: "Song of Iowa."

Nickname: Hawkeye State.

Origin of name: Probably from an Indian word meaning "I-o-w-a, this is the place."

1940 population & (rank): 2,538,268 (20).

1950 population & (rank): 2,621,073 (22).

1958 estimated population: 2,822,000.

Area & (rank): 56,280 sq. mi. (25).

Geographic center: In Marshall County, 2½ mi. S of State Center.

Number of counties: 99.

Largest cities (1950 Census): Des Moines (177,965); Sioux City (83,991); Davenport (74,549); Cedar Rapids (72,296); Waterloo (65,198).

State forests: 7 (13,469 ac.).

State parks: 89 (28,437 ac.).

State general revenue (1957-58): \$149,086,975.

State general expenditure (1957-58): \$148,928,613.

Iowa stands in a class by itself as an agricultural state, supplying 10% of the nation's food supply. It ranks first in livestock income, value of beef marketed, production averages of oats and popcorn, and production of hogs, chickens, eggs, corn and timothy seed. Nearly 95% of the state's total acreage is in farms, and the fertility of its soil is unsurpassed. Of all the Grade A land in the country, 25% is in Iowa.

However, the value of Iowa's manufactured products exceeds that of her agricultural products. The top industrial activity is meat packing. Des Moines fittingly leads all cities in the publication of farm journals and is also a large insurance center.

Iowa has the highest functional literacy rate in the nation.

West Branch is the birthplace of Herbert Hoover, who was the first President of the U. S. to be born west of the Mississippi.

KANSAS

Capital: Topeka.

Governor: George Docking, Dem. (to Jan. 1961).

Organized as territory: May 30, 1854.

Entered Union & (rank): Jan. 29, 1861 (34).

Present constitution adopted: 1859.

Motto: *Ad astra per aspera* (To the stars through difficulties).

State flower: Sunflower (1903).

State tree: Cottonwood (1937).

State bird: Western meadow lark (1937).

State animal: Buffalo (1955).

State song: "Home on the Range" (1947).

State march: "The Kansas March" (1935).

Nicknames: Sunflower State; Jayhawk State.

Origin of name: From a Siouan word meaning "people of the south wind."

1940 population & (rank): 1,801,028 (29).

1950 population & (rank): 1,905,299 (31).

1958 estimated population: 2,116,000.

Area & (rank): 82,276 sq. mi. (14).

Geographic center: In Barton Co., 15 mi. NE of Great Bend.

Number of counties: 105.

Largest cities (1950 Census): Wichita (168,279);

Kansas City (129,553); Topeka (78,791);

Hutchinson (33,575); Salina (26,176).

State forests: 1 (4,000 ac.).

State parks: 22 (14,394 ac.).

State operating revenue (1957-58): \$269,788,880.

State operating expenditure (1957-58): \$281,608,416.

Kansas finds its strength in wheat growing, flour milling and a variety of manufacturing enterprises. Slaughtering and meat packing are also extensively pursued. In the western part of the state, where Dodge City recalls the old days of cattle rustling, rich prairie land sprawls over a large area and gives an abundance of winter wheat and fine grazing.

Corn, sorghums, oats, barley, soy beans and potatoes are other crops. Besides oil, Kansas mines zinc, coal, salt and lead.

The state is the geographical center of the 48 contiguous states, and the geodetic center of the North American continent.

Wichita, a growing industrial center, is a leader in the production of military and civilian aircraft. Kansas City is a transportation, milling, and meat-packing center.

After being dry since the Murray Liquor Law of 1881, Kansas repealed prohibition in March 1949.

Points of unusual interest in Kansas include: President Eisenhower's boyhood home and the new Eisenhower Memorial Museum at Abilene; John Brown's well-preserved cabin at Osawatimie; recreated Front Street at Dodge City; and two historic military reservations—Ft. Leavenworth and Ft. Riley.

KENTUCKY

Capital: Frankfort.

Governor: A. B. Chandler, Dem. (to Dec. 1959).

Entered Union & (rank): June 1, 1792 (15).

Present constitution adopted: 1891.

Motto: United we stand, divided we fall.

State flower: Goldenrod.

State bird: Kentucky cardinal.

State song: "My Old Kentucky Home."

Nickname: Blue Grass State.

Origin of name: From an Iroquoian Indian word "Ken-tah-ten" meaning "land of tomorrow."

1940 population & (rank): 2,845,627 (16).

1950 population & (rank): 2,944,806 (19).

1958 estimated population: 3,080,000.

Area & (rank): 40,395 sq. mi. (37).

Geographic center: In Marion Co., 3 mi. W of N of Lebanon.

Number of counties: 120.

Largest cities (1950 Census): Louisville (369,129); Covington (64,452); Lexington (55,534); Owensboro (33,651); Paducah (32,828).

State forests: 3 (30,022 ac.).

State parks: 26 (16,888 ac.).

Total state revenue (1957-58): \$293,253,798.

Total state expenditure (1957-58, est.): \$293,971,972.

Kentucky prides itself on producing some of the nation's best tobacco, horses and whisky. It stands high in the production of native asphalt, hemp, coal, corn, oil.

Among the manufactured items produced by its cities are furniture, aluminum ware, brooms, shoes, lumber products, machinery, textiles and iron and steel products. Besides coal and oil, important minerals are natural gas and quarry products.

Louisville, the largest city, famed for the Kentucky Derby at Churchill Downs, has a large municipal university, distills whisky and is a great cigarette maker. The Blue Grass country is the home of some of the world's finest race horses. Lexington, standing in the center of this country, is a leading tobaccoist. Mammoth Cave, with its many miles of underground passages, is one tourist attraction. Another is Kentucky Lake, 184 miles wide, one of the largest man-made bodies of water in the world.

Kentucky was credited with a star in the Confederate flag because a secessionist group in the southwest part of the state set up a short-lived government and joined the Confederacy. The legitimate government, however, remained in the Union throughout the Civil War.

Marquette and Joliet in 1673 saw Kentucky when it was the "Dark and Bloody Ground," fiercely contested by Indian tribes. Daniel Boone explored the country in 1767.

LOUISIANA

Capital: Baton Rouge.

Governor: Earl K. Long, Dem. (to May 1960).

Organized as territory: Mar. 26, 1804.

Entered Union & (rank): Apr. 30, 1812 (18).

Seceded from Union: Jan. 26, 1861.

Re-entered Union: May 26, 1865.

Present constitution adopted: 1921.

Motto: Union, justice and confidence.

State flower: Magnolia (1900).

State bird: Pelican (unofficial).

State song: "Song of Louisiana."

Nicknames: Pelican State; Creole State; Sugar State.

Origin of name: In honor of Louis XIV of France.

1940 population & (rank): 2,363,880 (21).

1950 population & (rank): 2,683,516 (21).

1958 estimated population: 3,110,000.

Area & (rank): 48,523 sq. mi. (31).

Geographic center: In Avoyelles Parish, 3 mi. SE of Marksville.

Number of parishes (counties): 64.

Largest cities (1950 Census): New Orleans (570,445); Shreveport (127,206); Baton Rouge (125,629); Lake Charles (41,272); Monroe (38,572).

State forests: 1 (8,000 ac.).

State parks: 15 (13,323 ac.).

State general revenue (1957-58): \$626,738,176.

State general expenditure (1957-58): \$623,832,149.

Louisiana, which still calls its counties parishes after the Spanish religious divisions, is one of the leading states in fur trapping, with a rich annual bag of mink, muskrat, opossum and raccoon pelts. Other important

agricultural products are sugar cane, sweet potatoes, rice and cotton. The state is rapidly becoming industrialized, and is an important producer of petroleum and petrochemicals, pulp and paper, natural gas, sulfur, chemicals and salt.

New Orleans, home of the Mardi Gras, avoids flooding only by an expensive levee and spillway system. Its industry is making increased use of raw materials from South and Central America. The Vieux Carré, in this Old World city, called by many the "Little Paris" of the New World, has some of the celebrated restaurants of the nation.

Louisiana has a great variety and abundance of game birds. Its state-owned wildlife sanctuaries are among the world's largest.

Hernando de Soto, in the year 1540, is usually considered the first white man to see the state, but claims are made for Narvaez, who is reputed to have seen the state as early as 1528.

MAINE

Capital: Augusta.

Governor: Clinton A. Clauson, Dem. (to Jan. 1963).

Entered Union & (rank): Mar. 15, 1820 (23).

Present constitution adopted: 1820.

Motto: *Dirigo* (I guide).

State flower: White pine cone and tassel (1895).

State tree: Pine tree.

State bird: Chickadee (1927).

State song: "State of Maine Song" (1937).

Nickname: Pine Tree State.

Origin of name: From the French province of Mayne.

1940 population & (rank): 847,226 (35).

1950 population & (rank): 913,774 (35).

1958 estimated population: 952,000.

Area & (rank): 33,215 sq. mi. (39).

Geographic center: In Piscataquis Co., 18 mi. N of Dover-Foxcroft.

Number of counties: 16.

Largest cities (1950 Census): Portland (77,634); Lewiston (40,974); Bangor (31,558); Auburn (23,134); South Portland (21,866).

State forests: 1 (21,000 ac.).

State parks: 11 (203,533 ac.).

State general revenue (1958): \$115,582,387.

State general expenditure (1958): \$115,811,899.

Two major changes in Maine's constitution were voted in 1957: (1) the state's general election is now held in November instead of September, making the expression "As Maine goes so goes the nation" no longer valid, and (2) the governor now has a 4-year term and may succeed himself.

Maine produces one out of every seven potatoes raised in the U. S., and 95% of the nation's blueberries. The chicken broiler industry has climbed from \$300,000 after the last war to \$37 million today.

Maine is one of the world's largest pulp-paper producers. It ranks fifth in boot and shoe manufacturing. It has the largest forest area in the East, and planned cutting promises an unending wood supply for pulp-paper mills, lumber mills and hardwood processing plants.

The state leads the world in the production of the familiar flat tins of sardines, producing 200 million of them normally. Lobstermen catch 90% of the nation's total of true lobsters.

In 1959, the Appalachian range within the state was named the "Longfellow Mountains of Maine," in honor of Henry Wadsworth Longfellow, who was born in the state. Mt. Katahdin (5,267 ft.) is the highest peak. The area is recognized as a sportsman's paradise.

MARYLAND

Capital: Annapolis.
Governor: J. Millard Tawes, Dem. (to Jan. 1963).

Entered Union & (rank): Apr. 28, 1788 (7).
Present constitution adopted: 1867.
Motto: *Fatti maschii, parole femine* (Manly deeds, womanly words).

State flower: Black-eyed susan (1918).
State tree: White oak (1941).
State bird: Baltimore oriole (1882).
State song: "Maryland! My Maryland!" (1939).
Nicknames: Free State; Old Line State.
Origin of name: In honor of Henrietta Maria (Queen of Charles I of England).

1940 population & (rank): 1,821,244 (28).
1950 population & (rank): 2,343,001 (24).
1958 estimated population: 2,956,000.
Area & (rank): 12,303 sq. mi. (42).
Geographic center: In Anne Arundel Co., 3 mi. E of Collington.

Number of counties: 23, plus 1 independent city.

Largest cities (1950 Census): Baltimore (949,708); Cumberland (37,679); Hagerstown (36,260); Frederick (18,142); Salisbury (15,141).

State forests: 11 (119,186 ac.).
State parks: 17 (16,549 ac.).
State general revenue (1958): \$498,822,486.
State general expenditure (1958): \$497,191,008.

Maryland is cut almost in two by Chesapeake Bay, and the many estuaries and rivers create one of the longest water fronts of any state. The Bay produces more seafood—oysters, crabs, clams, fin fish—than any comparable body of water, and is a major crabbing center. Important agricultural products, in order of cash value, are dairy products, poultry and poultry products, tobacco, corn, vegetables, wheat, and soy beans. Maryland is a leader in vegetable canning and broiler raising. Sand and gravel, lime and cement, stone, coal, and clay are the chief mineral products.

Manufactures, which center in Baltimore, include missiles, airplanes, steel, clothing, and chemicals. The port of Baltimore ranks second in the country in foreign trade tonnage. Baltimore is the home of the Johns Hopkins University and Hospital. In Annapolis, State capital and home of the U. S. Naval Academy, is one of the earliest state houses (1772-1779) still in regular use by a State government.

The Charter of Maryland was granted in 1632 to Lord Baltimore, who died before it had passed the Great Seal; it was issued to

his oldest son, Cecil. The first settlers landed at St. Mary's in 1634.

MASSACHUSETTS

Capital: Boston.
Governor: Foster Furcolo, Dem. (to Jan. 1961).
Entered Union & (rank): Feb. 6, 1788 (6).
Present constitution adopted: 1780.

Motto: *Ense petit placidam sub libertate quietem* (By the sword we seek peace, but peace only under liberty).

State flower: Mayflower (1918).
State tree: American elm (1941).
State bird: Chickadee (1941).
State colors: Blue and gold (in flag and shield).

State song: None.
Nicknames: Bay State; Old Colony State.
Origin of name: From two Indian words meaning "great mountain place."

1940 population & (rank): 4,316,721 (8).
1950 population & (rank): 4,690,514 (9).
1958 estimated population: 4,862,000.
Area & (rank): 8,257 sq. mi. (45).

Geographic center: In Worcester Co., in N part of city of Worcester.
Number of counties: 14.

Largest cities (1955 State Census): Boston (724,702); Worcester (202,612); Springfield (166,052); New Bedford (105,488); Fall River (105,195).

State forests: 70 (170,000 ac.).
State parks: 21 (7,927 ac.).
State general revenue (1958): \$639,558,043.
State general expenditure (1958): \$607,094,700.

Massachusetts is the leading shoe producer in the U. S., and has been one of the leaders in the making of textiles since the beginning of American history. Top-ranking industries are electrical and other machinery, leather and leather products, apparel, and other finished goods and textile mill products. Logan International Airport at East Boston, the nearest point in the U. S. to Europe, ranks among the world's greatest aerodromes. It has one of the longest commercial runways (10,022 ft.) and the longest air passenger terminal building in the world (3,053 ft.).

Agricultural products, ranked in order of importance (1957), are dairy products, poultry, greenhouse and nursery products, vegetables, tobacco, and fruit. The state is the leader in producing carnations and cranberries.

The growth of factories brought to this state an influx of foreigners and today Boston has one of the largest Irish populations in the nation.

Faneuil Hall in Boston was known as the "Cradle of Liberty." From the belfry of Christ Church (Old North Church), on Copp's Hill, Paul Revere received the lantern message that began his famous ride. Boston was also the site of the Battle of Bunker Hill.

The Pilgrims landed at Plymouth Rock in 1620 as the first large group to settle here but legend has it that Eric the Red and his Norsemen saw the state in the year 1000.

MICHIGAN

Capital: Lansing.
Governor: G. Mennen Williams, Dem. (to Jan. 1961).
Organized as territory: Jan. 11, 1805.
Entered Union & (rank): Jan. 26, 1837 (26).
Present constitution adopted: 1908.
Motto: *Si quaeris peninsulam amoenam circumspice* (If you seek a pleasant peninsula, look around you).
State flower: Apple blossom (1897).
State bird: Robin (unofficial).
State animal: Wolverine (unofficial).
State song: "Michigan, My Michigan" (unofficial).
Nickname: Wolverine State.
Origin of name: From two Indian words meaning "great lake."
1940 population & (rank): 5,256,106 (7).
1950 population & (rank): 6,371,766 (7).
1958 estimated population: 7,866,000.
Area & (rank): 58,216 sq. mi. (23).
Geographic center: In Wexford Co., 5 mi. W of N of Cadillac.
Number of counties: 83.
Largest cities (1950 Census): Detroit (1,849,568); Grand Rapids (176,515); Flint (163,143); Dearborn (94,994); Saginaw (92,918).
State forests: 23 (3,744,082 ac.).
State parks: 78 (179,788 ac.).
State general revenue (1957-58): \$992,476,999.
State general expenditure (1957-58): \$1,055,327,720.

On a map of Michigan, draw an eighty-five-mile circle around Detroit and it will contain the home plants of the companies that make nine out of ten American automobiles. This industry, which sprang up about fifty years ago from the carriage-building business, is not the only activity of this state. Airplane parts, furniture (Grand Rapids is the furniture center of the U. S.), diesel engines, hoists, pumps, boilers are among its leading items of production. Most of the nation's refrigerators are made in Michigan. On its farms are grown dry beans, grapes, peaches, potatoes, sugar beets and other food crops.

Michigan is split completely in two parts. The northern peninsula is mining and timber country. The southern part is agricultural and manufacturing country. Connecting Lakes Superior and Huron is the busiest canal in the world—the Sault Ste. Marie.

Michigan has the greatest inland fisheries in the world and markets at least 20 species from carp, trout, perch, pike to lake herring.

The state's 11,037 inland lakes and 2,242 miles of Great Lakes shoreline make it a good vacation land. The artificial ski jump on Iron Mountain is probably the highest in the world.

MINNESOTA

Capital: St. Paul.
Governor: Orville L. Freeman, Dem. (to Jan. 1959).
Organized as territory: Mar. 3, 1849.
Entered Union & (rank): May 11, 1858 (32).
Present constitution adopted: 1858.

Motto: *L'Etoile du Nord* (The North Star).
State flower: Moccasin flower (1902).
State tree: Norway pine.
State bird: None.
State song: "Hall Minnesota."
Nicknames: North Star State; Gopher State; Land of 10,000 Lakes.
Origin of name: From a Dakota Indian word meaning "sky-tinted water."
1940 population & (rank): 2,792,300 (18).
1950 population & (rank): 2,982,483 (18).
1958 estimated population: 3,375,000.
Area & (rank): 84,068 sq. mi. (12).
Geographic center: In Crow Wing Co., 10 mi. SW of Brainerd.
Number of counties: 87.
Largest cities (1950 Census): Minneapolis (521,718); St. Paul (311,349); Duluth (104,511); Rochester (29,885); St. Cloud (28,410).
State forests: 32 (2,037,065 ac.).
State parks: 61 (84,350 ac.).
State general revenue (1958): \$867,764,913.
State general expenditure (1958): \$876,790,915.

A few square miles of Northern Minnesota, in the Mesabi, Cuyuna and Vermillion Ranges, produce most of the nation's iron ore, and provide the activity for the port of Duluth. Farm and factory are equally important in Minnesota. Its farms produce oats, butter, eggs, milk, corn, wheat, potatoes, etc. Its factory production follows the pattern of the Midwest. Machinery, furniture, foundry products, etc. are manufactured.

Minneapolis is the trade center of the Northwest. Its twin city St. Paul is the nation's biggest publisher of calendars and law books.

With over 11,000 lakes, the state is famous for its fishing, hunting and trapping.

Minnesota has many famous resort regions. Travel business for 1957 was estimated to exceed \$300 million.

In 1655, Radisson and Groseilliers, French traders from Canada, were the first white men to see the state.

MISSISSIPPI

Capital: Jackson.
Governor: J. P. Coleman, Dem. (to Jan. 1960).
Organized as territory: Apr. 7, 1798.
Entered Union & (rank): Dec. 10, 1817 (20).
Seceded from Union: Jan. 9, 1861.
Re-entered Union: Feb. 23, 1870.
Present constitution adopted: 1890.
Motto: *Virtute et armis* (By valor and arms).
State flower: Flower or bloom of the magnolia or evergreen magnolia (1952).
State tree: Magnolia (1938).
State bird: Mockingbird (1944).
State song: "Way Down South in Mississippi" (1948).
Nickname: Magnolia State.
Origin of name: From an Indian word meaning "Father of Waters."
1940 population & (rank): 2,183,796 (23).
1950 population & (rank): 2,178,914 (26).
1958 estimated population: 2,186,000.
Area & (rank): 47,716 sq. mi. (32).
Geographic center: In Leake Co., 9 mi. N of W of Carthage.

Number of counties: 82.

Largest cities (1950 Census): Jackson (98,271); Meridian (41,893); Biloxi (37,425); Greenville (29,936); Hattiesburg (29,474).

State forests: 1 (1,760 ac.).

State parks: 10 state-owned (10,972 ac.); 2 state-leased (1,910 ac.).

State general revenue (1957): \$213,291,403.

State general expenditure (1957): \$210,780,245.

Mississippi, the stronghold of the Old South, has until the past decade been one of the least industrialized states, with more than half its population making a living from the soil. A recent program of industrialization, however, has attracted numerous manufacturing concerns. Cotton, nevertheless, is still king. The world's largest cotton plantation of 35,000 acres is located at Scott. Other crops are corn, peanuts, oats, pecans, soybeans, rice, tung nuts, sugar cane and hay. There is a yearly income of \$356 million from forests and forest derivatives.

Mississippi's Central Hills have produced a serious soil-erosion problem due to the overemphasis placed on cotton growing through the years. Introduction of livestock and dairying and the pasture improvement programs attendant to it have helped in recent years to remedy this situation.

Mississippi was first to ratify the 18th Amendment, and it is the only state that still bans the sale of hard liquor. In 1950, it had the third largest Negro population in the U. S.

The state abounds in historical landmarks and is the home of the Vicksburg National Military Park commemorating Grant's victory.

MISSOURI

Capital: Jefferson City.

Governor: James T. Blair, Jr., Dem. (to Jan. 1961).

Organized as territory: June 4, 1812.

Entered Union & (rank): Aug. 10, 1821 (24).

Present constitution adopted: 1945.

Motto: *Salus populi suprema lex esto* (The welfare of the people shall be the supreme law).

State flower: Hawthorn (1923).

State bird: Bluebird (1927).

State colors: Red, white and blue (1913).

State song: "Missouri Waltz" (1949).

State tree: Dogwood (1955).

Nickname: Show-me State.

Origin of name: From an Indian word probably meaning "muddy water."

1940 population & (rank): 3,784,664 (10).

1950 population & (rank): 3,954,653 (11).

1958 estimated population: 4,271,000.

Area & (rank): 69,226 sq. mi. (19).

Geographic center: In Miller Co., 20 mi. SW of Jefferson City.

Number of counties: 114, plus 1 independent city.

Largest cities (1950 Census): St. Louis (856,796); Kansas City (456,622); St. Joseph (78,588); Springfield (66,731); University City (39,892).

State forests: 17 (175,000 ac.).

State parks: 31 (73,680 ac.). Also 2 Memorial Shrines.

State cash receipts (1957-58): \$518,270,672.

State general expenditure (1957-58): \$473,840,584

Missouri, touching both South and North, ranks highest in mining lead, making corn-cob pipes and breeding mules. Sometimes called the "saddle horse capital of the world" because of its excellent breeds, this state also grows corn, wheat, oats, barley, potatoes, tobacco and cotton on its fertile table land climbing to the Ozark Mountains. This country of rugged, timbered hills and deep valleys, has more than 10,000 swift-flowing streams. It produces automobiles, railroad cars, shoes, beer, drugs, and chemicals.

Eads Bridge, spanning the Mississippi River at St. Louis, probably handles more freight cars than any other bridge in the world. Bagnell Dam, across the Osage River in the Ozarks, completed in 1931, created one of the largest artificial lakes in the world, running for 129 miles and having a shoreline that extends for approximately 1,300 miles.

The homes of two of Missouri's most publicized sons—Mark Twain and Jesse James—are tourist attractions.

Missouri, like Kentucky, had a star in the Confederate flag because a minority of the state legislature adopted an ordinance of secession. The Governor and pro-secession legislature, however, were ousted and the state remained in the Union.

MONTANA

Capital: Helena.

Governor: J. Hugo Aronson, Rep. (to Jan. 1961).

Organized as territory: May 26, 1864.

Entered Union & (rank): Nov. 8, 1889 (41).

Present constitution adopted: 1889.

Motto: *Oro y plata* (Gold and silver).

State flower: Bitterroot (1895).

State tree: Ponderosa pine (1949).

State bird: Western meadow lark (1931).

State song: "Montana" (1945).

Nickname: Treasure State.

Origin of name: Chosen from Mexican dictionary by J. M. Ashley. It is a Mexicanized Spanish word.

1940 population & (rank): 559,456 (39).

1950 population & (rank): 591,024 (42).

1958 estimated population: 688,000.

Area & (rank): 147,138 (4).

Geographic center: In Fergus Co., 12 mi. W of Lewistown.

Number of counties: 56, plus small part of Yellowstone National Park.

Largest cities (1950 Census): Great Falls (39,214); Butte (33,251); Billings (31,834); Missoula (22,485); Helena (17,581).

State forests: 7 (686,000 ac.).

State parks: 18 (3,981 ac.).

State general revenue (1958-59): \$145,309,812.

State general expenditure (1958-59): \$153,511,483.

Montana's story is the old Western story—few settlers until a gold strike in 1862 brought an influx. Mining is its present occupation, and copper, lead, zinc, silver, coal, and oil are taken from its earth.

Butte, sitting on the "richest hill in the world," is the center of the area that once supplied half of the U. S. copper (its most important mineral). Livestock, wool, lumber and dude ranching round out its interests. Agriculture is dependent on irrigation.

The state as a whole still possesses the frank character of the old days, reflected in the legend that the only reason Helena was selected as the name to replace Last Chance Gulch was because of the suggestion of profanity in the front part of that name. Glacier National Park is a popular tourist area with its rugged scenery, hunting areas and dude ranches. While little development has been made, Montana offers fine potentialities for winter sports.

NEBRASKA

Capital: Lincoln.

Governor: Ralph G. Brooks, Dem. (to Jan. 1961).

Organized as territory: May 30, 1854.

Entered Union & (rank): Mar. 1, 1867 (37).

Present constitution adopted: 1875 (extensively amended 1919-20).

Motto: Equality before the law.

State flower: Goldenrod (1895).

State tree: American elm (1937).

State bird: Western meadow lark (1929).

State song: "My Nebraska" (unofficial).

Nickname: Cornhusker State.

Origin of name: From an Oto Indian word meaning "flat water."

1940 population & (rank): 1,315,834 (32).

1950 population & (rank): 1,325,510 (33).

1958 estimated population: 1,457,000.

Area & (rank): 77,407 sq. mi. (15).

Geographic center: In Custer Co., 10 mi. NW of Broken Bow.

Number of counties: 93.

Largest cities (1950 Census): Omaha (251,117);

Lincoln (98,884); Grand Island (22,682);

Hastings (20,211); North Platte (15,433).

State forests: 2.

State parks: 7 (1,036 ac.).

State general revenue (1958): \$145,820,000.

State general expenditure (1958): \$142,597,000.

Nebraska lives by its expansive sea of grain, reflected in its bumper crops of rye, corn and wheat. There are more varieties of grass growing in this state, valuable for forage, than in any other state in the nation. Its sizable cattle and hog industries help to make Omaha a great stockyard and meat-packing center. Flour, freight cars, farm machinery, precision instruments, brick and tile are products of Nebraska.

Oil was discovered in 1939, and natural gas in 1949. The state was 14th in oil production in the U. S. for 1956.

In 1937, Nebraska became the only state in the Union to have a unicameral (one-house) legislature. Members are elected to it without party designation.

NEVADA

Capital: Carson City.

Governor: Grant Sawyer, Dem. (to Jan. 1963).

Organized as territory: Mar. 2, 1861.

Entered Union & (rank): Oct. 31, 1864 (36).

Present constitution adopted: 1864.

Motto: All for our country.

State flower: Sagebrush (1917).

State tree: Pinyon pine (official).

State bird: Mountain bluebird (unofficial).

State colors: Blue and silver (unofficial).

State song: "Home Means Nevada" (1933).

Nicknames: Sagebrush State; Silver State;

Battle Born State.

Origin of name: Spanish: meaning "snow-clad."

1940 population & (rank): 110,247 (48).

1950 population & (rank): 160,083 (48).

1958 estimated population: 267,000.

Area & (rank): 110,690 (7).

Geographic center: In Lander Co., 23 mi. SE of Austin.

Number of counties: 17.

Largest cities (1950 Census): Reno (32,497);

Las Vegas (24,624); Sparks (8,203); Elko (5,393); North Las Vegas (3,875).

State forests: None.

State parks: 9 (25,535 ac.).

State general-fund revenue (1959): \$24,323,575.

State general-fund expenditure (1959): \$20,663,249.

Nevada was made famous by the discovery of the fabulous Comstock Lode in 1859, and its mines have produced large quantities of gold, silver, copper, lead, zinc, quicksilver, and tungsten. Oil was discovered in Feb., 1954. There are also uranium deposits.

In 1931, the state created a new industry by writing an easy divorce law and Reno has since become the "divorce capital of the nation." Gambling was legalized and the gaming tables now pay a tax to add to the state's income.

Near Las Vegas, on the Colorado River, stands the Hoover Dam which has twice changed its name (Hoover to Boulder to Hoover).

The state's agricultural crop consists mainly of hay, wheat, barley and potatoes.

Nevada was the first state to use gas for capital punishment.

NEW HAMPSHIRE

Capital: Concord.

Governor: Wesley Powell, Rep. (to Jan. 1961).

Entered Union & (rank): June 21, 1788 (9).

Present constitution adopted: 1784.

Motto: Live free or die.

State flower: Purple lilac (1919).

State tree: White birch (1947).

State bird: Purple finch (1957).

State song: "Old New Hampshire" (1949).

Nickname: Granite State.

Origin of name: From the English county of Hampshire.

1940 population & (rank): 491,524 (45).

1950 population & (rank): 533,242 (44).

1958 estimated population: 584,000.

Area & (rank): 9,304 sq. mi. (44).

Geographic center: In Belknap Co., 3 mi. E of Ashland.

Number of counties: 10.

Largest cities (1950 Census): Manchester (82,732); Nashua (34,669); Concord (27,988);

Portsmouth (18,830); Berlin (16,615).

State forests: 143 (55,769 ac.).

State parks: 33 (30,976 ac.).
 State general revenue (1957): \$55,287,359.
 State general expenditure (1957): \$69,236,244.

New Hampshire is the only state that ever played host at the formal conclusion of a foreign war when, in 1905, Portsmouth was the scene of the treaty ending the Russo-Japanese War. The sandy and stony loam of this state needs liberal fertilization for the growing of its principal crops—fruit, truck vegetables, corn, oats, hay and potatoes. Its chief manufacturing is the production of textiles, leather goods, pulp and paper products.

New Hampshire was the first state to declare its independence from Great Britain and to adopt a constitution. Mt. Washington has recorded some of the world's strongest wind velocities, the last recording of record proportions being registered at 231 miles per hour. The state also has the largest legislative body; it varies from 375 to 400.

With 1,300 lakes and good climate for both winter sports and summer vacations, the state is highly popular as a resort area.

NEW JERSEY

Capital: Trenton.
 Governor: Robert B. Meyner, Dem. (to Jan. 1962).

Entered Union & (rank): Dec. 18, 1787 (3).
 Present constitution adopted: 1947.
 Motto: Liberty and prosperity.
 State flower: Purple violet (1913).
 State bird: Eastern goldfinch (1935).
 State tree: Red oak (1950).
 State colors: Blue and gold.
 State song: None.
 Nickname: Garden State.
 Origin of name: From the Channel Isle of Jersey.

1940 population & (rank): 4,160,165 (9).
 1950 population & (rank): 4,835,329 (8).
 1958 estimated population: 5,749,000.
 Area & (rank): 8,208.71 sq. mi. (46).
 Geographic center: In Mercer Co., 5 mi. SE of the State Capitol.
 Number of counties: 21.
 Largest cities (1950 Census): Newark (438,776); Jersey City (299,017); Paterson (139,336); Trenton (128,009); Camden (124,555).
 State forests: 11 (155,114 ac.).
 State parks: 23 (26,825 ac.).
 State general revenue (1956-57): \$531,072,678.
 State general expenditure (1956-57): \$539,085,135.

New Jersey, situated in an area of wide industrial diversification between the major markets of Philadelphia and New York, is known as the crossroads of the East. Products from over 15,000 factories and shops can be delivered overnight to about 52 million people, representing 12 states and the District of Columbia. The greatest single industry is chemicals, and New Jersey is one of the foremost research centers of the world. Oil refining and shipbuilding are represented at Linden and Camden by some of the largest installations of their kind.

Of the total land area, 46% is forested and nearly 34.6% is devoted to agriculture. The state rates high in practically all garden

vegetables. Among its fruit crops are the famous cultivated blueberries, which originated in New Jersey. The poultry industry is one of the principal phases of the state's agriculture, and dairying occupies a prominent place.

The oldest U. S. highway of any length was built in Sussex County. The New Jersey Turnpike links New York, Pennsylvania and Delaware. Its new span at Florence over the Delaware River connects with the Pennsylvania Turnpike, giving motorists an uninterrupted road from New York to Chicago. Garden State Parkway (toll) is now open from Cape May to the N. Y. Thruway (173 mi.).

Its fortunate topography and geographic location make New Jersey a popular resort state with over 100 resort areas.

NEW MEXICO

Capital: Santa Fe.
 Governor: John Burroughs, Dem. (to Jan. 1961).
 Organized as territory: Sept. 9, 1850.
 Entered Union & (rank): Jan. 6, 1912 (47).
 Present constitution adopted: 1912.
 Motto: *Crescit eundo* (It grows as it goes).
 State flower: Yucca (1927).
 State tree: Piñon (1949).
 State bird: Road runner (1949).
 State fish: Cutthroat trout (1955).
 State colors: Flaming red and golden orange (1915).
 State song: "O, Fair New Mexico" (1916).
 Nicknames: Land of Enchantment; Sunshine State.
 Origin of name: From the country of Mexico.
 1940 population & (rank): 531,818 (42).
 1950 population & (rank): 681,187 (39).
 1958 estimated population: 842,000.
 Area & (rank): 121,666 sq. mi. (5).
 Geographic center: In Torrance Co., 12 mi. W of S of Willard.
 Number of counties: 32.
 Largest cities (1950 Census): Albuquerque (96,815); Santa Fe (27,998); Roswell (25,738); Carlsbad (17,975); Clovis (17,318).
 State forests: 300,000 ac. of forested lands.
 State parks: 8 (92,818 ac.).
 State general revenue (1957): \$186,364,000.
 State general expenditure (1957): \$173,512,000.

New Mexico's chief industries are mining and the raising of cattle and crops. Irrigation is vital.

The state contains the largest Indian reservation in the U. S. with over 16,000,000 acres, inhabited by the Navajo tribe. The Apaches and Utes live in three other reservations in this state (the Jicarilla Apache, at Horse Lake; the Mescalero Apache, northeast of Alamogordo; the Navajo, in San Juan and McKinley counties; and the Southern Ute, in the northern part of San Juan County). Carlsbad Caverns, the largest in the world, attract many visitors annually. The Rio Grande State Park, established in March, 1959, will be over 80 miles long when it is fully developed.

The state's dry and healthful climate makes it a great recuperative mecca for

tuberculars. Santa Fe, the oldest seat of government in the U. S., was founded by the Spaniards in 1609-10.

Los Alamos is the site of an atomic-energy laboratory. The first atomic explosion in history was at the Alamogordo air base. The state exceeds all others in the production and milling of uranium ore.

NEW YORK

Capital: Albany.

Governor: Nelson A. Rockefeller, Rep. (to Jan. 1963).

Entered Union & (rank): July 26, 1788 (11).

Present constitution adopted: 1777 (last revised 1938).

Motto: *Excelsior* (Ever upward).

State flower: Rose (1955).

State tree: Sugar maple (1956).

State bird: Bluebird (unofficial).

State song: None.

Nickname: Empire State.

Origin of name: In honor of the English Duke of York.

1940 population & (rank): 13,479,142 (1).

1950 population & (rank): 14,830,192 (1).

1958 estimated population: 16,229,000.

Area & (rank): 49,576 sq. mi. (30).

Geographic center: In Madison Co., 6 mi. E of S of Oneida.

Number of counties: 62.

Largest cities (1950 Census): New York (7,891,957); Buffalo (580,132); Rochester (332,488); Syracuse (220,583); Yonkers (152,798).

State Forest Preserves: Adirondacks, 2,252,269 ac.; Catskills, 235,076 ac.

State parks: 85 (approx. 200,000 ac., including parkways).

State general fund income (1958): \$1,453,772,135.

State general fund outgo (1958): \$1,453,602,806.

New York, with the great metropolis of New York City, is the spectacular nerve center of the nation. It leads in population, manufacturing, foreign trade, commercial and financial transactions, book and magazine publishing, theatrical production, etc.

New York City is not only a national but an international leader. It is the busiest seaport in the world: New York International Airport is one of the busiest in the world. First in manufacturing since 1824, the city today has a gigantic clothing and fur industry and also makes chemicals, paints, drugs, machinery, paper, wood, and textile products and houses the tallest buildings in the world.

Nearly all the rest of the state's manufacturing is done along the Hudson River north to Albany and through the Mohawk Valley, Central New York, and Southern Tier regions to Buffalo. The St. Lawrence seaway and power projects are opening the North Country to industrial expansion. Planes, heavy and light electrical equipment, locomotives, radio and TV sets, auto bodies and parts, washing machines, typewriters, photographic and optical equipment, shirts, and flour are manufactured. Dairying, truck gardening, and the raising of potatoes, onions, and cabbage keep the New York farmer prosperous. Winemaking is a major industry in the state.

New York's extremely rapid commercial growth may be partly attributed to Governor De Witt Clinton who pushed through the construction of the Erie Canal (Buffalo to Albany) which was opened in 1825. Today, the 500-mile N. Y. Thruway connects New York City with Buffalo and the Connecticut, Massachusetts, and Pennsylvania borders.

The convention and tourist business is one of the state's greatest sources of income.

For a short time, New York City was the U. S. Capital and George Washington was inaugurated there as the first President on April 30, 1789.

During the "Year of History" in 1959, the 350th anniversary of the historic explorations of Henry Hudson and Samuel de Champlain was celebrated. Hudson entered the state in 1609 by way of the river later named in his honor. The same year, Champlain entered from the north through the lake that today bears his name.

NORTH CAROLINA

Capital: Raleigh.

Governor: Luther H. Hodges, Dem. (to Jan. 1961).

Entered Union & (rank): Nov. 21, 1789 (12).

Succeeded from Union: May 20, 1861.

Re-entered Union: July 20, 1868.

Present constitution adopted: 1876.

Motto: *Esse quam videri* (To be rather than to seem) (1893).

State flower: Dogwood (1941).

State bird: Cardinal (1943).

State song: "The Old North State" (1927).

State colors: red and blue (1945).

Nickname: Tar Heel State.

Origin of name: In honor of Charles I of England.

1940 population & (rank): 3,571,623 (11).

1950 population & (rank): 4,061,929 (10).

1958 estimated population: 4,549,000.

Area & (rank): 52,712 sq. mi. (28).

Geographic center: In Chatham Co., 10 mi. NW of Sanford.

Number of counties: 100.

Largest cities (1950 Census): Charlotte (134,042); Winston-Salem (87,811); Greensboro (74,389); Durham (71,311); Raleigh (65,679).

State forests: 1.

State parks: 11 (35,628 ac.).

State revenue (excluding Federal funds, 1957-58): \$366,192,507.

State expenditure (all funds, 1957-58): \$370,957,941.

North Carolina is the nation's largest tobacco and textile producer. It holds first place in the Southeast in population and in the value of its industrial and agricultural production. This production is highly diversified, with furniture, chemicals and paper constituting enormous industries. Tobacco, corn, cotton, hay, peanuts and truck and vegetable crops are of major importance.

The state leads the South in social and economic reforms. Its educational pay scale is the same for white and Negro teachers.

There are 18 state and national parks and forests, including the Great Smoky Moun-

tains National Park, the Blue Ridge Parkway and the new Cape Hatteras National Seashore. Mt. Mitchell, on the Parkway near Asheville, is the highest mountain in the Eastern U. S. (6,684 ft. above sea level).

The largest military reservation in the U. S. (Fort Bragg) and the largest Marine amphibious training base (Camp LeJeune) are in North Carolina.

The first English colony in America was established on Roanoke Island in 1585. Virginia Dare, who was born there in 1587, was the first child of English parentage born in America.

NORTH DAKOTA

Capital: Bismarck.

Governor: John E. Davis, Rep. (to Jan. 1961).
Organized as territory: Mar. 2, 1861.

Entered Union & (rank): Nov. 2, 1889 (39).

Present constitution adopted: 1889.

Motto: Liberty and union, now and forever: one and inseparable.

State flower: Wild prairie rose (1907).

State tree: American elm (1947).

State bird: Western meadow lark (1947).

State song: "North Dakota Hymn" (1947).

Nickname: Sioux State; Flickertail State.

Origin of name: From the Dakotah tribe, meaning "allies."

1940 population & (rank): 641,935 (39).

1950 population & (rank): 619,636 (41).

1958 estimated population: 650,000.

Area & (rank): 70,665 sq. mi. (17).

Geographic center: In Sheridan Co., 5 mi. SW of McClusky.

Number of counties: 53.

Largest cities (1950 Census): Fargo (38,256);

Grand Forks (26,836); Minot (22,032); Bismarck (18,640); Jamestown (10,697).

State forests: None.

State parks: 5 (2,981 ac.).

State collections (1958): \$122,341,002.

State disbursements (1958): \$120,830,537.

North Dakota, politically progressive, operates the only state-owned bank, flour mill and grain elevator in the nation. The state owes its main activity to agriculture with over 87 per cent of its acreage devoted to the growth of barley, wheat, rye, oats and livestock. Most of its manufacturing consists of dairy products.

The finest farming land is in the Red River Valley, celebrated in song. Cattle raising is centered in the Missouri Valley.

"Number One Northern Hard," a wheat first grown in this state, still brings premium prices for its excellence of quality.

The completion of Garrison Dam on the Missouri River will result in extensive irrigation and the production of 400,000 kw. of electricity for use in the Missouri Basin areas.

In 1951, oil was discovered near Tioga by the Amerada Petroleum Corp. Geologists believe that the state holds two-thirds of the nation's lignite.

The geographic center of the North American continent is located in Pierce County, latitude 48°10'N, longitude 100°10'W.

OHIO

Capital: Columbus.

Governor: Michael V. DiSalle, Dem. (to Jan. 1963).

Entered Union & (rank): Mar. 1, 1803 (17).

Present constitution adopted: 1851.

Motto: *Imperium in imperio* (An empire within an empire) (unofficial).

State flower: Scarlet carnation (1904).

State bird: Cardinal (1933).

State song: None.

Nickname: Buckeye State.

Origin of name: From an Iroquoian word meaning "great river."

1940 population & (rank): 6,907,612 (4).

1950 population & (rank): 7,946,627 (5).

1958 estimated population: 9,345,000.

Area & (rank): 41,222 sq. mi. (35).

Geographic center: In Delaware Co., 25 mi. N of Columbus.

Number of counties: 88.

Largest cities (1950 Census): Cleveland (914,808); Cincinnati (503,998); Columbus (375,901); Toledo (303,616); Akron (274,605).

State forests: 20 (145,281 ac.).

State parks: 55 (22,074 ac.).

State general revenue (1957-58): \$1,363,860,806.

State general expenditure (1957-58): \$1,318,946,247.

With vast coal and oil fields on the one hand, with Great Lakes iron ore close by on the other, Ohio automatically developed into one of the nation's greatest industrial states. The vast and varied factory output of its cities runs from wire, nails, nuts, bolts, paper, radios, cash registers, golf clubs, refrigerators to motors of all kinds and sizes. Cleveland is one of the world's largest handlers of iron ore. Toledo is the nation's largest shipper of coal. Akron makes most of the automobile tires used in the U. S.

Ohio's thousands of factories almost overshadow its importance in two other basic industries—mining and agriculture. Its fertile soil produces soy beans, corn, wheat, grapes and tobacco. Dairying and greenhouse products are important. Mining is centered in coal, oil, sand, gravel and clay.

OKLAHOMA

Capital: Oklahoma City.

Governor: J. Howard Edmondson, Dem. (to Jan. 1963).

Organized as territory: May 2, 1890.

Entered Union & (rank): Nov. 16, 1907 (46).

Present constitution adopted: 1907.

Motto: *Labor omnia vincit* (Labor conquers all things).

State flower: Mistletoe (1893).

State tree: Redbud (1937).

State bird: Scissor-tailed Flycatcher (1951).

State colors: Green and white (1915).

State song: "Oklahoma" (1953).

Nickname: Sooner State.

Origin of name: From two Choctaw Indian words meaning "red people."

1940 population & (rank): 2,336,434 (22).

1950 population & (rank): 2,233,351 (25).

1958 estimated population: 2,285,000.

Area & (rank): 69,919 sq. mi. (18).
 Geographic center: In Oklahoma Co., 8 mi. N of Oklahoma City.
 Number of counties: 77.
 Largest cities (1950 Census): Oklahoma City (243,504); Tulsa (182,740); Muskogee (37,289); Enid (36,017); Lawton (34,757).
 State forests: None.
 State parks: 14 (47,813.42 ac.).
 State general revenue (1957-58): \$400,058,244.
 State general expenditure (1957-58): \$406,192,785.

Oil has made Oklahoma a rich state and Tulsa one of the world's wealthiest cities per capita. The smelting of zinc, oil refining, meat packing and flour milling are its chief factory industries. Wheat, corn, oats, cotton, sorghums and potatoes are its agricultural crops of chief importance.

In 1834, Oklahoma was set aside as Indian Territory. It remained so until Apr. 22, 1889, when the first opening to homestead settlement occurred. On that one day, 50,000 people swarmed in, and the term "sooners" was born to apply to those who had sneaked into the state sooner than the noon deadline. A series of land openings by "runs" and lotteries extended through 1901, and sales by sealed bid of remaining lands were held in 1906 and 1910.

In 1959, Oklahomans voted to end the state prohibition law, which had been in effect for 51 years.

OREGON

Capital: Salem.
 Governor: Mark O. Hatfield, Rep. (to Jan. 1963).
 Organized as territory: Aug. 14, 1848.
 Entered Union & (rank): Feb. 14, 1859 (33).
 Present constitution adopted: 1859.
 Motto: The Union (1957).
 State flower: Oregon grape (1899).
 State tree: Douglas fir (1939).
 State bird: Western meadow lark (1927).
 State colors: Navy blue and gold (1959).
 State song: "Oregon, My Oregon" (1927).
 Nickname: Beaver State.
 Origin of name: Unknown. However, it is generally accepted that the name, first used by Jonathan Carver in 1778, was taken from the writings of Maj. Robert Rogers, an English army officer.
 1940 population & (rank): 1,089,684 (34).
 1950 population & (rank): 1,521,341 (32).
 1958 estimated population: 1,773,000.
 Area & (rank): 96,981 sq. mi. (10).
 Geographic center: In Crook Co., 25 mi. E of S of Prineville.
 Number of counties: 36.
 Largest cities (1950 Census): Portland (373,628); Salem (43,140); Eugene (35,879); Medford (17,305); Corvallis (16,207).
 State forests: 736,766.29 ac. in 16 counties.
 State parks: 171 (59,463 ac.).
 State general revenue (1958): \$291,778,000.
 State general expenditure (1958): \$301,885,000.

Oregon, with the greatest U. S. reserve of standing timber, has a billion-dollar forestry industry. Its salmon fishing industry, centered at Astoria at the mouth of the Columbia River, is one of the world's largest.

In agriculture, the state leads in growing peppermint, holly, lily bulbs, caneberrles, filberts, Blue Lake beans and cover seed crops, and also raises strawberries, hops, wheat and other grains, sugar beets, potatoes, green peas, fiber flax, dairy products, livestock and poultry.

Crater Lake National Park, Mount Hood, and Bonneville Dam on the Columbia are major tourist attractions.

With the low-cost electric power provided by Bonneville Dam, McNary Dam and other dams in the Pacific Northwest, Oregon has developed steadily as a manufacturing state. Leading manufactures are lumber and lumber products, metalwork, machinery, aluminum, chemicals, paper and food processing.

PENNSYLVANIA

Capital: Harrisburg.
 Governor: David L. Lawrence, Dem. (to Jan. 1963).
 Entered Union & (rank): Dec. 12, 1787 (2).
 Present constitution adopted: 1874.
 Motto: Virtue, liberty and independence.
 State flower: Mountain laurel (1933).
 State tree: Hemlock (1931).
 State bird: Ruffed grouse (1931).
 State colors: Blue and gold.
 State song: None.
 Nickname: Keystone State.
 Origin of name: In honor of Adm. Sir William Penn, father of William Penn. It means "Penn's Woodland."
 1940 population & (rank): 9,900,180 (2).
 1950 population & (rank): 10,498,012 (3).
 1958 -estimated population: 11,101,000.
 Area & (rank): 45,333 sq. mi. (33).
 Geographic center: In Center Co., 2 1/2 mi. SW of Bellefonte.
 Number of counties: 67.
 Largest cities (1950 Census): Philadelphia (2,071,605); Pittsburgh (676,806); Erie (130,803); Scranton (125,536); Reading (109,320).
 State forests: 20 (1,873,802 ac.).
 State parks: 54 (159,552 ac., incl. other recreational spots).
 Total revenue subject to appropriations (biennium ending May 31, 1958): \$705,456,755.
 Total expenditures (1958): \$729,704,232.

From the steel mills of Pittsburgh through the mid-state coal mines and oil wells to the shipyards and factories of Philadelphia, Pennsylvania bristles with heavy industry. Approximately 30% of all American iron and steel is made in Pennsylvania. Other manufactures include locomotives, boilers, engines, blast furnaces, trucks, busses, wire, textiles, knit goods and nylon and rayon products. Virtually all of the U. S. anthracite (hard coal) deposits are located in Pennsylvania.

Agricultural products include apples, peaches, potatoes, corn, hay, barley, wheat, buckwheat and tobacco.

Pennsylvania is rich in historical lore. Philadelphia was the seat of the Federal government almost continuously from 1776 until 1800, and there the Declaration of In-

dependence was signed and the Constitution drawn up. Valley Forge, of the Revolution, and Gettysburg, the turning-point of the Civil War, are both in Pennsylvania. The Liberty Bell stands in Independence Square in Philadelphia.

RHODE ISLAND

Capital: Providence.
Governor: Christopher Del Sesto, Rep. (to Jan. 1961).
Entered Union & (rank): May 29, 1790 (13).
Present constitution adopted: 1843.
Motto: Hope.
State flower: Violet (unofficial).
State tree: Maple (unofficial).
State bird: Rhode Island Red (official).
State colors: Blue, white and gold (in state flag).
Song: "Rhode Island" (1946).
Nickname: Little Rhody.
Origin of name: From the Greek island of Rhodes.
1940 population & (rank): 731,346 (36).
1950 population & (rank): 791,896 (36).
1958 estimated population: 875,000.
Area & (rank): 1,214 sq. mi. (50).
Geographic center: In Kent Co., 2.8 mi. S. by W. of Crompton.
Number of counties: 5.
Largest cities (1950 Census): Providence (248,674); Pawtucket (81,436); Cranston (55,060); Woonsocket (50,211); Warwick (43,028).
State forests: 9 (15,600 ac.).
State parks: 15 (8,023 ac.).
State general revenue (1958): \$94,475,952.
State general expenditure (1958): \$99,839,786.

Rhode Island, with the greatest density of population barring the District of Columbia, boasts the highest proportion of industrial workers of all the states. Leading industry is textiles, largely concentrated in Pawtucket, Providence and Woonsocket.

Providence is also one of the largest U. S. jewelry centers, and is important in the production of machinery and metal products.

With more than eight-tenths of the population living in urban areas, adjacent parts of the state are interested in dairying, poultry and truck farming. Nursery and greenhouse products and stock, potatoes, corn, apples, oats and hay lead the crop list. Of the state's land area, about one-seventh is farm cropland and open pasture; two-thirds is forested.

Newport is the site of the Naval War College and was long a show place for the luxurious summer homes built by some of New York's wealthiest people. The U. S. Naval Air Station is at Quonset in the town of North Kingstown.

Roger Williams founded Providence, and subsequently Rhode Island, in 1636.

SOUTH CAROLINA

Capital: Columbia.
Governor: Ernest F. Hollings, Dem. (to Jan. 1963).
Entered Union & (rank): May 23, 1788 (8).
Seceded from Union: Dec. 20, 1860.

Re-entered Union: July 18, 1868.
Present constitution adopted: 1895.
Mottos: *Animus opibusque parati* (Prepared in mind and resources) and *Dum spiro spero* (While I breathe, I hope).
State flower: Carolina yellow jessamine (1924).
State tree: Palmetto tree (1939).
State bird: Carolina wren (1948).
State song: "Carolina" (1911).
Nickname: Palmetto State.
Origin of name: In honor of Charles II of England.
1940 population & (rank): 1,899,804 (26).
1950 population & (rank): 2,117,027 (27).
1958 estimated population: 2,404,000.
Area & (rank): 31,055 sq. mi. (40).
Geographic center: In Richland Co., 13 mi. SE of Columbia.
Number of counties: 46.
Largest cities (1950 Census): Columbia (86,914); Charleston (70,174); Greenville (58,161); Spartanburg (36,795); Rock Hill (24,502).
State forests: 4 (123,000 ac.).
State parks: 22 (46,000 ac.).
State total revenue (1956-57): \$187,443,991.
State general expenditure (1956-57): \$189,361,105.

Once primarily agricultural, South Carolina has built so many big textile and other mills that today the state's factories are eight times the output of its farms in cash value. Agriculture has not, however, been completely replaced and today the chief products are livestock, cotton, tobacco, peaches, corn, hay, oats, sweet potatoes, and peanuts, which are enhanced by the recent development of modern soil-conservation methods. Charleston makes asbestos, wood, pulp, and steel products.

Civil War hostilities were started in this state at Charleston, when, on April 12, 1861, South Carolina men bombarded and captured Fort Sumter.

SOUTH DAKOTA

Capital: Pierre.
Governor: Ralph Herseth, Dem. (to Jan. 1961).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Nov. 2, 1889 (40).
Present constitution adopted: 1889.
Motto: Under God the people rule.
State flower: American pasqueflower (1903).
State tree: Black Hills spruce (1947).
State bird: Ring-necked pheasant (1943).
State animal: Coyote (1949).
State colors: Blue and gold (in state flag).
State song: "Hail! South Dakota" (1943).
Nicknames: Sunshine State; Coyote State.
Origin of name: Same as for North Dakota.
1940 population & (rank): 642,961 (38).
1950 population & (rank): 652,740 (40).
1958 estimated population: 699,000.
Area & (rank): 77,047 sq. mi. (16).
Geographic center: In Hughes Co., 8 mi. NE of Pierre.
Number of counties: 66 (64 county governments).
Largest cities (1950 Census): Sioux Falls (52,696); Rapid City (25,310); Aberdeen (21,051); Huron (12,788); Watertown (12,699).

State forests: 4 (86,000 ac.).
 State parks: 10 (80,000 ac.).*
 State general revenue (1956-57): \$94,715,994.
 State general expenditure (1956-57): \$100,822,386.†

* The acreage shown includes 46 recreation areas and 31 roadside parks in addition to the 10 state parks.
 † Includes final liquidation of veterans' bonds for Korean War, which results in higher expenditures than revenue.

Seventy-five per cent of the population of South Dakota is actively interested in agriculture. Its leading crops are rye, barley, oats, corn, wheat. Cattle raising and dairying are its stronger industries. The richest U. S. gold mine, the Homestake, is at Lead.

The Black Hills, a great tourist attraction, are the highest mountains east of the Rockies. Mt. Rushmore, in this group, is celebrated for the likenesses of Washington, Jefferson, Lincoln and Theodore Roosevelt, which were carved in stone by the late Gutzon Borglum. The Badlands offer very scenic masses of bare rock and clay unrelieved by any vegetation. It was in this state that the Sioux Indians, angered at the influx of the white men who were searching for gold, started the hostilities which ended in Custer's Massacre, on June 25, 1876, in Montana.

TENNESSEE

Capital: Nashville.
 Governor: Buford Ellington, Dem. (to Jan. 1963).
 Entered Union & (rank): June 1, 1796 (16).
 Seceded from Union: June 24, 1861.
 Re-entered Union: July 24, 1866.
 Present constitution adopted: 1870, amended for first time 1953.
 Motto: Agriculture, commerce.
 State flower: Iris (1933).
 State tree: Tulip poplar (1947).
 State bird: Mockingbird (1933).
 Songs: "My Homeland, Tennessee" (1925) and "When It's Iris Time in Tennessee" (1935).
 Nickname: Volunteer State.
 Origin of name: From the name of the ancient capital of the Cherokee tribe.
 1940 population & (rank): 2,915,841 (15).
 1950 population & (rank): 3,291,718 (16).
 1958 estimated population: 3,469,000.
 Area & (rank): 42,246 sq. mi. (34).
 Geographic center: In Rutherford Co., 5 mi. NE of Murfreesboro.
 Number of counties: 95.
 Largest cities (1950 Census): Memphis (396,000); Nashville (174,307); Chattanooga (131,041); Knoxville (124,769); Jackson (30,207).
 State forests: 14 (154,752 ac.).
 State parks: 19 (101,325 ac.).
 State general revenue (1957-58): \$375,737,000.
 State general expenditure (1957-58): \$372,624,000.

Tennessee won world prominence in 1945, for the atom bomb was made possible by the Clinton Engineer Works at Oak Ridge.

The state is now predominately industrial, with production including chemicals, food,

textiles, virgin aluminum, shoes, lumber products, and metal work. Mineral products include phosphates, zinc, copper, lead, sinter iron, pyrites, high-grade pottery clay, coal and marble. Tennessee's agricultural production includes livestock, cotton, corn, tobacco, hay, dairy products, poultry and eggs.

Tennessee is the home of TVA which operates 29 dams and distributes power from 3 dams on the Cumberland River maintained by the Army Corps of Engineers. Benefits of flood control, navigation and electrical power reach into 6 other states (Kentucky, Alabama, North Carolina, Georgia, Virginia, and Mississippi). The Tennessee River, already the most completely used major river in the world, is insufficient to supply energy needs, and the power system is being doubled by use of steam generating plants.

TEXAS

Capital: Austin.
 Governor: Price Daniel, Dem. (to Jan. 1961).
 Entered Union & (rank): Dec. 29, 1845 (28).
 Seceded from Union: Mar. 2, 1861.
 Re-entered Union: Mar. 30, 1870.
 Present constitution adopted: 1876.
 Motto: Friendship.
 State flower: Bluebonnet (1901).
 State tree: Pecan (1919).
 State bird: Mockingbird (1927).
 State song: "Texas, Our Texas" (1930).
 Nickname: Lone Star State.
 Origin of name: From an Indian word meaning "friends."
 1940 population & (rank): 6,414,824 (6).
 1950 population & (rank): 7,711,194 (6).
 1958 estimated population: 9,377,000.
 Area & (rank): 267,339 sq. mi. (2).
 Geographic center: In McCulloch Co., 20 mi. NE of Brady.
 Number of counties: 254.
 Largest cities (1950 Census): Houston (596,163); Dallas (434,462); San Antonio (408,442); Fort Worth (278,778); Austin (132,459).
 State forests: 4 (6,306 ac.).
 State parks: 49.
 State revenue receipts (1957-58): \$1,019,293,977.
 State govt. cost (1957-58): \$1,027,389,546.

Texas is the richest political subdivision in the world with the possible exception of the Russian Ukraine, and is the only state that may, by Congressional statute, divide into five parts if it so desires. There is very little possibility of this ever being done because Texas and Texans live by its bigness. Texas is a natural leader in oil, natural gas, cotton, cattle, helium, sulfur, sheep, wool, onions, and turkeys.

The distance from El Paso to Beaumont is a greater distance than from New York to Chicago. Over the Neches River, at Port Arthur, is the most elevated highway bridge over tidal waters in the world.

Cabeza de Vaca explored the state in 1528. Since 1685, it has been under the jurisdiction of 6 separate governments: those of France, Spain, Mexico, the Republic of Texas, the Confederacy, and the United States.

UTAH

Capital: Salt Lake City.
Governor: George D. Clyde, Rep. (to Jan. 1961).
Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 4, 1896 (45).
Present constitution adopted: 1896.
Motto: Industry.
State flower: Sego lily (1911).
State tree: Blue spruce (1933).
State bird: Seagull (1955).
State emblem: Beehive.
State song: "Utah, We Love Thee."
Nickname: Beehive State.
Origin of name: From the Ute tribe, meaning "people of the mountains."
1940 population & (rank): 550,310 (41).
1950 population & (rank): 688,862 (38).
1958 estimated population: 865,000.
Area & (rank): 84,916 sq. mi. (11).
Geographic center: In Sanpete Co., 3 mi. N of Manti.
Number of counties: 29.
Largest cities (1950 Census): Salt Lake City (182,121); Ogden (57,112); Provo (28,937); Logan (16,832); Murray (9,006).
State forests: None.
State parks: 3 (276 ac.).
State general revenue (1956-57): \$136,623,122.*
State general expenditure (1956-57): \$129,054,-093.*
 * State began period with \$38,833,037 balance or surplus; finished with \$46,402,066.

Utah, rich in natural resources, has long been recognized for its copper, gold, silver, lead and zinc. Also, it produces all the elements necessary for the manufacture of steel: iron, lime, dolomite, fluorspar, manganese and coal for coking. Uranium mining has recently become a major industry. The state is also developing an oil industry and in 1958 rose to tenth in rank among states in total production.

Utah's crops requiring extensive irrigation include sugar beets, potatoes, hay, onions and wheat. Various garden crops, such as beans, peas and tomatoes, and fruits, such as pears, peaches, apples and apricots, make up an ever-growing industry. Eggs and commercial poultry are also among the products of Utah.

Brigham Young led the Mormons into the area in 1847.

Great Salt Lake, lying in the north central area, has long been a world wonder. It has no known outlet, and its salt content is about six times that of the ocean. Because of its natural beauty and pioneer culture, Utah is an ideal place for tourists to visit.

VERMONT

Capital: Montpelier.
Governor: Robert T. Stafford, Rep. (to Jan. 1961).
Entered Union & (rank): Mar. 4, 1791 (14).
Present constitution adopted: 1793.
Motto: Vermont—freedom and unity.
State flower: Red clover (1894).
State tree: Sugar maple (1949).
State bird: Hermit thrush (1941).
State song: "Hail to Vermont" (1937).

Nickname: Green Mountain State.
Origin of name: From the French, meaning "green mountain."
1940 population & (rank): 359,231 (46).
1950 population & (rank): 377,747 (45).
1958 estimated population: 372,000.
Area & (rank): 9,609 sq. mi. (43).
Geographic center: In Washington Co., 4.5 mi. SSE of Roxbury Village.
Number of counties: 14.
Largest cities (1950 Census): Burlington (33,155); Rutland (17,659); Barre (10,922); Montpelier (8,599); St. Albans (8,552).
State forests: 28 (82,690 ac.).
State parks: 26 (7,314.5 ac.).
State revenue (1958): \$63,400,567.
State expenditure (1958): \$74,943,237.

Vermont, the only New England state without a seacoast (and the last to be settled because of this), leads the nation in marble, granite, asbestos and maple syrup production. In ratio to population it keeps more dairy cows than any other state. Vermont's soil is devoted to dairying, truck farming and fruit growing, its rugged area precluding extensive farming. This same quality, however, along with a bracing dry climate, makes the state popular as a summer resort and as a center of winter sports.

From 1777 to 1791, Vermont was an independent state of indefinite status with some national perquisites and then was the first state after the original thirteen to join the Union. It was also the first state to forbid slavery and the first to adopt universal manhood suffrage (1777). Vermont has been Republican since 1854; only Georgia on the Democratic side ties that record.

VIRGINIA

Capital: Richmond.
Governor: James Lindsay Almond, Jr., Dem. (to Jan. 1962).
Entered Union & (rank): June 25, 1788 (10).
Seceded from Union: Apr. 17, 1861.
Re-entered Union: Jan. 27, 1870.
Present constitution adopted: 1902.
Motto: *Sic semper tyrannis* (Thus always to tyrants).
State flower: American dogwood (1918).
State bird: Cardinal.
State song: "Carry Me Back to Old Virginny" (1940).
Nicknames: The Old Dominion; Cavalier State.
Origin of name: In honor of Elizabeth, "Virgin Queen" of England.
1940 population & (rank): 2,677,773 (19).
1950 population & (rank): 3,318,680 (15).
1958 estimated population: 3,935,000.
Area & (rank): 40,815 sq. mi. (36).
Geographic center: In Appomattox Co., 11 mi. S of E of Amherst.
Number of counties: 98, plus 31 independent cities.
Largest cities (1950 Census): Richmond (230,310); Norfolk (213,513); Roanoke (91,921); Portsmouth (80,039); Alexandria (61,787).
State forests: 7 (47,338 ac.).
State parks: 8 (21,523 ac.).
State revenue (1958): \$513,502,897.
State expenditure (1958): \$554,935,324.

The history of America is closely tied to that of Virginia, particularly in the colonial period. Jamestown, founded in 1607, was the first permanent English settlement in North America, and slavery was introduced there in 1619. The surrenders ending both the American Revolution and the Civil War occurred in Virginia. The state is called the "Mother of Presidents" because 8 chief executives of the U. S. were born there.

Points of historic interest include Mount Vernon and other places associated with Washington; Monticello, home of Jefferson; Stratford, home of the Lees; Richmond, capital of the Confederacy and of Virginia; and Williamsburg, the restored Colonial capital.

Among Virginia's natural wonders are the famous Natural Bridge and the limestone caverns of the Shenandoah Valley. The most important natural resources are beds of bituminous coal, forest lands, oyster beds and commercial fisheries.

Manufacturing includes chemicals, textiles, lumber and wood products, foods, transportation equipment (including shipbuilding), apparel and furniture. Agricultural products include livestock, poultry, dairy goods, tobacco, apples, grains and hay crops.

WASHINGTON

Capital: Olympia.

Governor: Albert D. Rosellini, Dem. (to Jan. 1961).

Organized as territory: Mar. 2, 1853.

Entered Union & (rank): Nov. 11, 1889 (42).

Present constitution adopted: 1889.

Motto: *Al-Ki* (Indian word meaning Bye and Bye).

State flower: Rhododendron (1949).

State tree: Hemlock (1947).

State bird: Goldfinch (1951).

State colors: Green and gold (1925).

State song: "Washington, My Home" (1959).

Nicknames: Evergreen State; Chinook State.

Origin of name: In honor of Geo. Washington.

1940 population & (rank): 1,736,191 (30).

1950 population & (rank): 2,378,963 (23).

1958 estimated population: 2,769,000.

Area & (rank): 68,192 sq. mi. (20).

Geographic center: In Chelan Co., 10 mi. S of W of Wenatchee.

Number of counties: 39.

Largest cities (1950 Census): Seattle (467,591);

Spokane (161,721); Tacoma (143,673);

Yakima (38,486); Bellingham (34,112).

State forests: 2.

State parks: 60 (75,000 ac.).

State revenue, all funds (1955-56): \$471,933,775.

State expenditures, all funds (1955-56): \$438,711,366.

Washington is one of the leaders in lumber production. Its rugged surface is rich in stands of Douglas fir, yellow and white pine, spruce, larch and cedar. The state's other first is apples. Food and lumber products and a wide variety of goods flow from Washington factories.

The Columbia River contains one third of the potential water power of America. Largest dam is Grand Coulee, greatest power

producer in the world. Other mighty dams on the Columbia include Chief Joseph, Rock Island, Bonneville, McNary and The Dalles, which are shared with Oregon. There are 96 dams in Washington, built for various purposes including power, irrigation, flood control, water storage, etc.

The Hanford Engineer Works, north of Pasco, has been set up as the world's first full-scale plant for atom bombs.

WEST VIRGINIA

Capital: Charleston.

Governor: Cecil H. Underwood, Rep. (to Jan. 1961).

Entered Union & (rank): June 20, 1863 (35).

Present constitution adopted: 1872.

Motto: *Montani semper liberi* (Mountaineers always free).

State flower: Rhododendron (1903).

State tree: Sugar maple (1949).

State bird: Cardinal (1949).

State animal: Black bear.

State colors: Blue and gold (unofficial).

State songs: "West Virginia, My Home Sweet Home" (approved 1947 as one of songs of state); "West Virginia Hills" (by custom).

Nickname: Mountain State.

Origin of name: Same as for Virginia.

1940 population & (rank): 1,901,974 (25).

1950 population & (rank): 2,005,552 (29).

1958 estimated population: 1,969,000.

Area & (rank): 24,181 sq. mi. (41).

Geographic center: In Braxton Co., 4 mi. E of Sutton.

Number of counties: 55.

Largest cities (1950 Census): Huntington (86,353); Charleston (73,501); Wheeling (58,891); Clarksburg (32,014); Parkersburg (29,684).

State forests: 10 (96,418 ac.).

State parks: 21 (38,752 ac.).

State general revenue (1957-58): \$104,654,805.

State general expenditure (1957-58): \$104,378,674.

Mountainous West Virginia is the coal mining leader of the nation. The state also ranks high in steel, glass, aluminum and chemical manufacture, natural gas, oil, quarry products and hardwood lumber. Cattle is the main agricultural product. Leading crops include wheat, corn, oats, hay, tobacco and fruit.

West Virginia was created when its residents refused to secede from the Union and severed the state from Virginia during the Civil War era.

Like many mountain states, West Virginia has an equable climate without extremes. White Sulphur Springs, in Greenbrier County, is a famous health resort.

WISCONSIN

Capital: Madison.

Governor: Gaylord A. Nelson, Dem. (to Jan. 1961).

Organized as territory: Apr. 20, 1836.

Entered Union & (rank): May 29, 1848 (30).

Present constitution adopted: 1848.

Motto: Forward.

State flower: Violet.
 State tree: Sugar maple.
 State bird: Robin.
 State animal: Badger; "wild life" animal: white-tailed deer.
 State fish: Musky (Muskellunge).
 State song: "On Wisconsin" (unofficial).
 Nickname: Badger State.
 Origin of name: French corruption of an Indian word meaning "gathering of waters."
 1940 population & (rank): 3,137,587 (13).
 1950 population & (rank): 3,434,575 (14).
 1958 estimated population: 3,938,000.
 Area & (rank): 56,154 sq. mi. (26).
 Geographic center: In Wood Co., 9 mi. SE of Marshfield.
 Number of counties: 71.
 Largest cities (1950 Census): Milwaukee (637,-392); Madison (96,056); Racine (71,193); Kenosha (54,368); Green Bay (52,735).
 State forests: 8 (345,037 ac.).
 State parks: 31 (18,407 ac.).
 State total net revenue, all funds (1957-58): \$571,150,072.
 State total net expenditure, all funds (1957-58): \$417,886,964.

Wisconsin leads the U. S. in milk and cheese production. In 1958, the state produced 14% of the nation's total output of milk. Other important farm products are: potatoes, cabbage, maple sugar, cranberries and cherries. The state ranks first in producing peas, corn and beets for canning.

About 40 years ago Wisconsin's forests became depleted, but in recent years phenomenal strides in reforestation have been made. The chief industrial products of the state are automobiles, machinery, furniture, paper, beer and processed foods.

Wisconsin pioneered in social legislation, providing pensions for the blind (1907), aid to dependent children (1913) and old-age assistance (1925). In 1932, it was the first state to enact an unemployment compensation law. In labor legislation, the state has also pioneered in important laws, among them the first workmen's compensation law actually to take effect. Wisconsin had the first state-wide primary-election law and the first successful income-tax law.

WYOMING

Capital: Cheyenne.
 Governor: J. J. "Joe" Hickey, Dem. (to Jan. 1963).
 Organized as territory: July 25, 1868.
 Entered Union & (rank): July 10, 1890 (44).
 Present constitution adopted: 1890.
 Motto: Equal rights (1955).
 State flower: Indian paintbrush (1917).
 State tree: Cottonwood (1947).
 State bird: Meadow lark (1927).
 State insignia: Bucking horse (unofficial).
 State song: "Wyoming" (1955).
 Special legal holiday: Arbor Day (by governor's designation).
 Nickname: Equality State.
 Origin of name: From the Indian, meaning "mountains and valleys alternating"; named after the Wyoming Valley in Pa.
 1940 population & (rank): 250,742 (47).
 1950 population & (rank): 290,529 (47).
 1958 estimated population: 320,000.
 Area & (rank): 97,914 sq. mi. (9).
 Geographic center: In Fremont Co., 58 mi. N of E of Lander.
 Number of counties: 23, plus Yellowstone National Park.
 Largest cities (1950 Census): Cheyenne (31,-935); Casper (23,673); Laramie (15,581); Sheridan (11,500); Rock Springs (10,857).
 State forests: None.
 State parks: 2 (1,060 ac.).
 Estimated income available (General Fund, 1959-61): \$34,053,000.
 Estimated expenditure (General Fund, 1959-61): \$31,700,000.

Wealthy in wool, cattle, oil and coal, Wyoming was first in U. S. history to insure woman's place in politics. In 1869, it gave women the vote and Mrs. Nellie Tayloe Ross, who held office in 1925-27, was the first U. S. woman governor.

Second in mean elevation to Colorado, Wyoming has many lures for the tourist trade, notably Yellowstone National Park. Cheyenne is famous for its annual "Frontier Days" celebration, which brings in visitors from everywhere. One of the world's largest subbituminous coal fields lies near Gillette. Big game hunting is good in many parts of the state.

COMMONWEALTH OF PUERTO RICO

Capital: San Juan.
 Governor: Luis Muñoz Marín, Pop. Dem. (to Jan. 1961).
 Song: "La Borinqueña."
 1940 population: 1,869,255.
 1950 population: 2,210,703.
 1940-50 population change: +18.3%.
 1957-58 estimated population: 2,317,453.
 Area: 3,435 sq. mi.
 Largest cities (1950 Census): San Juan (357,-205*); Ponce (99,492); Mayagüez (58,944); Caguas (33,759); Arecibo (28,659).
 * Includes Río Piedras (132,438), which was annexed in 1951.

Puerto Rico is an island about 100 mi. long and 35 mi. wide at the northeastern

end of the Caribbean Sea. It is a self-governing Commonwealth freely and voluntarily associated with the U. S. Under its Constitution, a Governor and a Legislative Assembly are elected by direct vote for a 4-year period. The judiciary is vested in a Supreme Court and lower courts established by law. The people elect a Resident Commissioner to the U. S. House of Representatives, where he has a voice but no vote. The island was formerly an unincorporated territory of the U. S. after being ceded by Spain as a result of the Spanish-American War.

The Commonwealth, established in 1952, is one of the most densely populated areas of

the world, with about 674 inhabitants per square mile. However, it has one of the highest standards of living in Latin America. Featuring Puerto Rican economic development is Operation Bootstrap. This program has established more than 500 new factories

and has greatly increased agricultural production, transportation and communications facilities, electric power, housing, and other industries.

Columbus discovered the island on his second voyage to America in 1493.

NON SELF-GOVERNING U. S. TERRITORIES

AMERICAN SAMOA

Capital: Pago Pago (on Tutuila Island).

Governor: Peter Tali Coleman.

1940 population: 12,908.

1950 population: 18,937.

1957 estimated population: 20,400.

Area: 76 sq. mi.

American Samoa, a group of 5 volcanic islands and 2 coral atolls located some 2,400 miles south of Hawaii in the South Pacific Ocean, is an insular possession of the U. S. administered by the Department of the Interior.

By the Treaty of Berlin signed Dec. 2, 1899, and ratified Feb. 16, 1900, the U. S. was internationally acknowledged to have rights extending over all the islands of the Samoa group east of longitude 171° west of Greenwich. On Apr. 17, 1900, the chiefs of Tutuila and Aunu'u ceded those islands to the U. S. In 1904, the King and chiefs of Manu'a ceded the islands of Ofu, Olosega and Tau (comprising the Manu'a group) to the U. S. Swains Island, some 200 miles north of Samoa, was included as part of the territory by Act of Congress Mar. 4, 1925; and on Feb. 20, 1929, Congress formally accepted sovereignty over the entire group and placed the responsibility for administration in the hands of the President. From 1900-51, by Presidential direction, the Department of the Navy governed the territory. On July 1, 1951, administration was transferred to the Department of the Interior.

The principal products are copra, mats, handicrafts and canned fish.

BAKER, HOWLAND AND JARVIS

These Pacific islands were not to play a role in the extraterritorial plans of the U. S. until May 13, 1936, when the U. S. perfected its claim. President F. D. Roosevelt, at that time, placed them under the control of and jurisdiction by the Secretary of the Interior for administration purposes.

Baker Island is a saucer-shaped atoll with an area of approximately one square mile and an elevation of 20 feet. It is about 1,650 miles from Hawaii.

Howland Island, 36 miles to the northeast, is approximately one and a half miles long and half a mile wide and rises to an elevation of 18 feet.

Jarvis Island is several hundred miles to the east and is approximately two miles long by one and an eighth miles wide.

Baker, Howland, and Jarvis have been uninhabited since 1942.

CANAL ZONE

Headquarters: Balboa Heights, C. Z.; 21 West St., New York City; 425 Thirteenth St., N. W., Washington, D. C.

Governor-President: Maj. Gen. W. E. Potter.

1940 population: 51,827.

1950 population: 52,822.

1954 population: 38,953.

Area: 553 sq. mi.

The Canal Zone is a 50-mile strip between the Atlantic and Pacific Oceans which was granted to the U. S. in perpetuity by the Republic of Panamá by treaty in 1903 (ratified Feb. 26, 1904). It extends roughly 5 miles on either side of the center line of the Panama Canal.

The 1903 treaty provided for the payment of \$10,000,000 by the U. S. to Panamá upon ratification of the treaty and \$250,000 in gold annually, beginning 9 years after ratification. The annual payments were increased to \$430,000 after the U. S. went off the gold standard. The annuity was increased to \$1,930,000 by the 1955 treaty.

The history of the Canal goes back to 1534, when King Charles V of Spain ordered a survey made. Construction of the waterway was formally inaugurated in Jan. 1880 by the French Canal Co. under a concession granted by New Granada (Colombia) 2 years earlier. Twenty years later, the French gave up their efforts to build a canal and sold their canal rights and properties to the U. S. for \$40,000,000, the transfer being made May 4, 1904, in Panama City. The construction was completed 10 years later.

The Canal is 40.27 miles from shore line to shore line and 50.72 miles from deep water in the Caribbean to deep water in the Pacific. The Panama Railroad, completed in 1855, is owned by the Panama Canal Co. It roughly parallels the Canal channel, running 47.64 miles from Colón to Panama City and is the oldest transcontinental railroad in the Americas.

The Panama Canal Locks, which provide a water bridge between the two oceans, are Gatún Locks on the Atlantic side and Pedro Miguel and Miraflores Locks on the Pacific side. They lift or lower ships 85 feet between sea level and Gatún Lake level in 3 steps on each side of the Isthmus. Each of the twin chambers in every flight of locks has a usable length of 1,000 feet, a width of 110 feet, and a minimum depth of water of 40 feet.

The Canal Zone is, in effect, a U. S. government reservation, and in general no private enterprise is permitted except that relating directly to the operation of the waterway.

The Governor, who is appointed by the U. S. President, administers the Canal Zone Government, which is charged with the civil government, including health, sanitation and protection of the Zone. The Governor is also ex officio President of the Panama Canal Company, which is a corporate agency of the U. S. charged with the operation of the Canal and related business activities.

CANTON AND ENDERBURY

Canton and Enderbury Islands, the largest of the Phoenix group, are jointly administered by the United States and Great Britain after and agreement signed on Apr. 6, 1939. Canton is triangular in shape and the largest of the eight islands of this group. It lies approximately 1,600 miles southwest of Hawaii in the Pacific and was discovered at the turn of the eighteenth century by U. S. whalers. It was surveyed by Commander R. W. Meade who named it after a whaler ship. It had, in 1956, a population of 341, including Europeans. Enderbury is rectangular in shape and is 2.7 miles long by one mile wide. It is unpopulated and lies about 32 miles southeast of Canton.

GUAM

Capital: Agaña.

Governor: Richard Barrett Lowe.

1940 population: 22,290.

1950 population: 59,498.

1957 estimated population: 65,000.

1950 area: 206 sq. mi.

Guam, the largest of the Mariana Islands, is independent of the trusteeship assigned to the U. S. in 1947. It was acquired by the U. S. from Spain in 1898 (occupied 1899) and was placed under the Navy Department.

In World War II, Guam was seized by the Japanese on Dec. 11, 1941; but on July 27, 1944, it was once more in U. S. hands.

On Aug. 1, 1950, President Truman signed a bill which granted U. S. citizenship to the people of Guam and established self-government. However, the people do not have an elected representative in Washington, D.C., and they do not vote in national elections. The civilian Governor operates under the Department of the Interior.

Added stimulus to Guam's economy was given by the development in 1950 of a commercial port at Apra Harbor.

JOHNSTON ISLAND

This island was originally discovered by Captain Charles James Johnston of *H.M.S. Cornwallis* on Dec. 14, 1807. On July 27, 1858, it was claimed by Hawaii and later became a possession of the U. S. The island is about 600 miles southwest of Hawaii and about 1½ miles long by half a mile wide.

KINGMAN REEF

This reef was discovered by Captain W. E. Kingman in Nov. 1853 and is the smallest land of U. S. sovereignty. It is 150 feet long by 120 feet wide at high tide. At low tide, two other islets of this atoll appear. It is about 1,000 miles south of Hawaii.

MIDWAY

Midway, lying about 1,200 miles west-northwest of Hawaii, was discovered by Captain N. C. Brooks of the Hawaiian bark *Gambia* on July 5, 1859, in the name of the U. S. It was formally declared a U. S. possession in 1867, and in 1903 Theodore Roosevelt made it a naval reservation.

Sand and Eastern Islands, with 850 acres and 328 acres respectively, are its largest individual islands.

The total group comprises an area of 28 square miles and has no native population. The Navy Department maintains an installation and has jurisdiction over the island.

VIRGIN ISLANDS OF THE U. S.

Capital: Charlotte Amalie (on St. Thomas).

Governor: John David Merwin.

1940 population: 24,889 (St. Croix, 12,902; St.

Thomas, 11,265; St. John, 722).

1950 population: 26,665.

1940-50 population change: +7.1%.

1956 estimated population: 30,261.

Area: 133 sq. mi. (St. Croix, 82; St. Thomas, 32; St. John, 19).

The Virgin Islands, consisting of 9 main islands and some 75 islets, were discovered by Columbus in 1493. Since 1666, England has held 6 of the main islands; the other 3 (St. Croix, St. Thomas and St. John), as well as about 50 of the islets, were eventually acquired by Denmark, which named them the Danish West Indies. In 1917, these islands were purchased by the U. S. from Denmark for \$25 million.

Congress granted U. S. citizenship to Virgin Islanders in 1927; and, in 1931, administration was transferred from the Navy to the Department of the Interior. Universal suffrage was given in 1936 to all persons who could read and write the English language. The Governor is appointed by the President of the U. S.

About 85% of the population is Negro, and there is limited farming, fishing and cattle raising. Vegetables, citrus fruits and coconuts are raised, and the chief items of export are sugar, rum and bay rum. Tourism is the principal industry.

WAKE ISLAND

Wake Island, about halfway between Midway and Guam, is actually the three islets of Wilkes, Peale and Wake. They were discovered by the British in 1796 and annexed by the U. S. in 1888. The entire area comprises four square miles. In 1938, Pan American Airways established a seaplane base and it has been used as a commercial base since then. On Dec. 8, 1941, it was attacked by the Japanese, who finally took possession on Dec. 23. It was surrendered by the Japanese on Sept. 4, 1945.

The Civil Aeronautics Administration maintains a station on the island and has jurisdiction, with the Navy, over the island. There is no native population.

U. S. Trusteeships

In 1885, Germany assumed a protectorate over the Marshall Islands; and, in 1899, she purchased the Northern Mariana and Caroline Islands from Spain. These islands were occupied by the Japanese in 1914 and were mandated to Japan by the League of Nations in 1919. On Apr. 2, 1947, the U. N. Security Council approved a trusteeship agreement proposed by the U. S. under which the Northern Mariana, Caroline and Marshall Islands became a Strategic Trust Territory under the administration of the U. S. The measure was approved by the President, with the agreement of Congress, on July 18, 1947. Administration was transferred from the Navy to the Department of the Interior on July 1, 1951. However, administration of Saipan and Tinian was transferred back to the Navy on Jan. 1, 1953. On July 17 of the same year, administration of the remaining islands of the Northern Marianas, with the exception of Rota, was also transferred back to the Navy.

The entire group comprises more than 2,000 islands, but the total land area is only 687 sq. mi., many of the islands being only tiny coral reefs. The Micronesians are the main cultural group, the inhabitants of the Northern Marianas being most advanced.

MARIANA ISLANDS

The Mariana Islands, east of the Philippines and south of Japan, include the islands of Guam, Rota, Saipan, Tinian, Pagan, Guguan, Agrihan and Aguljan. Guam, the largest, is independent of the trusteeship, having been acquired by the U. S. from Spain in 1898. (For information on Guam, see preceding page.)

Chief crops are copra and fresh fruits and vegetables.

CAROLINE ISLANDS

The Caroline Islands, east of the Philippines and south of the Marianas, include the Yap, Truk and Palau groups and the islands of Ponape and Kusale, as well as many coral atolls.

The islands are composed chiefly of vol-

canic rock, and their peaks rise 2,000 to 3,000 feet above sea level. Chief exports of the islands are copra, trochus and handicrafts.

MARSHALL ISLANDS

The Marshall Islands, east of the Carolines, are divided into two chains: the western or Ralik group, including the atolls Jaluit, Kwajalein, Wotho, Bikini and Eniwetok; and the eastern or Ratak group, including the atolls Mili, Majuro, Maloelap, Wotje and Likiep.

The islands are of the coral-reef type and rise only a few feet above sea level. The chief crop is coconuts; exports include copra, tortoise shell, mother-of-pearl, etc.

Bikini and Eniwetok have been the scene of several atom-bomb tests.

Islands Under Provisional U. S. Administration

In accordance with the Japanese peace treaty signed Sept. 8, 1951, the U. S. may propose that the U. N. assign to it, as a trusteeship, the following former Japanese territory: the Ryukyu Islands south of 29° n. lat. (largest: Okinawa); the Bonin Islands (largest: Chichi Jima); the Volcano Islands

(including Iwo Jima); Rosario Island; Parece Vela; and Marcus Island. It was also agreed in the treaty that, until such trusteeship is actually granted, the U. S. will administer the islands. As of Sept., 1959, no action had been taken by the U. S. toward bringing about this trusteeship.

THE LARGEST CITIES OF THE UNITED STATES

Since we planned the INFORMATION PLEASE ALMANAC as a book of national scope and interest, we avoided emphasis on and identification with a single city or state, as has been characteristic of all almanacs heretofore. To obtain accurate and authoritative information we have gone to the city officials. We appreciate their co-operation. The tabular material listed here is the latest provided by the sources.

AKRON, OHIO

Incorporated as city: 1865.

Mayor-Manager: Leo Berg (to Dec. 1959).

1940 population & (rank): 244,791 (38).

1950 population & (rank): 274,605 (39).

1940-50 population change: +12.2%.

1950 land area: 53.7 sq. mi.

Altitude: 1,081 ft.

Location: In NE part of state, on Little Cuyahoga River.

County: Seat of Summit Co.

Churches: 316 of all denominations in county.

City-owned parks: 73 (4,400 ac.).

Telephones (1959): 134,000.

Television sets (1959): 37,300.

Radio stations (1959): AM, 4; FM, 1.

Assessed valuation (1958): \$768,000,000.

City tax rate (1958): \$37.13 per \$1,000.

Bonded debt (1958): \$35,499,631.

Revenue (1958): \$24,851,497.

Expenditure (1958): \$23,057,986.

ATLANTA, GA.

Incorporated as city: 1847.

Mayor: William B. Hartsfield (to Jan 1962).

1940 population & (rank): 302,288 (28).

1950 population & (rank): 331,314 (33).

1959 estimated population: 512,000.

1940-50 population change: +9.6%.
 1958 area: 126.0 sq. mi.
 Altitude: Highest, 1,050 ft.; lowest, 940.
 Location: In NW central part of state, near Chattahoochee River.
 Counties: In Fulton and De Kalb Cos.; seat of Fulton Co.
 Churches: For whites, more than 352; for Negroes, more than 270.
 City-owned parks and parkways: 150 (3,000 ac.).
 Telephones (1958): 375,429.
 Families with radios (1956): 220,400.
 Television sets (1956): 186,200.
 Radio stations: AM, 15; FM, 5.
 Television stations: 3.
 Assessed valuation (1959): \$976,362,838.
 City tax rate (1959): \$29.25 per \$1,000.
 Bonded debt (1958): \$59,354,202.
 Revenue (1958): \$30,708,238.
 Expenditure (1958): \$44,007,041.

BALTIMORE, MD.

Incorporated as city: 1797.
 Mayor: J. Harold Grady (to May 1963).
 1940 population & (rank): 859,100 (7).
 1950 population & (rank): 949,708 (6).
 1940-50 population change: +10.5%.
 1940 area: Land, 78.7 sq. mi.; inland water, 6.9.
 Altitude: Highest, 490 ft.; lowest, sea level.
 Location: On Patapsco River, about 12 mi. from Chesapeake Bay.
 County: Independent city.
 Churches: Roman Catholic, 68; Jewish, 51; Protestant and others, 488.
 City-owned parks: 148 park areas and tracts (6,000 ac.).
 Telephone subscribers (Apr. 1, 1959): 242,469.
 Radio stations: AM, 11; FM, 4.
 Television stations: 3.
 Assessed valuation (1959): \$3,550,248,778.
 City tax rate (1959): \$3.34 per \$100.
 Net bonded debt (Jan. 1, 1959): \$286,432,467.
 Current revenue (1958 budget): \$196,758,821.
 Current expenditure (1958 budget): \$185,808,355.

BIRMINGHAM, ALA.

Incorporated as city: 1871.
 Mayor: James W. Morgan (to Nov. 1961).
 1940 population & (rank): 267,583 (35).
 1950 population & (rank): 326,037 (34).
 1940-50 population change: +21.8%.
 1958 estimated population: 378,000.
 1958 land area: 68.19 sq. mi.
 Altitude: Highest, 1,052 ft.; lowest, 565.
 Location: In N central part of state.
 County: Seat of Jefferson Co.
 Churches: Protestant, 491; Roman Catholic, 26; Jewish, 3.
 City-owned parks: 66 (1,211 ac.).
 Telephones (1958): 190,370.
 Television sets (1955): 142,000.
 Radio stations: AM, 11; FM, 4.
 Television stations: 4.
 Assessed valuation (1958): \$420,955,312.
 City tax rate (1955): \$18 per \$1,000.
 Net bonded debt (1958): \$34,551,000.
 Revenue (1958): \$27,387,547.
 Expenditure (1958): \$28,287,673.

BOSTON, MASS.

Incorporated as city: 1822.
 Mayor: John B. Hynes (to Jan. 1960).
 1940 population & (rank): 770,816 (9).
 1950 population & (rank): 801,444 (10).
 1940-50 population change: +4.0%.
 1956 area: Land, 47.8 sq. mi.; inland water, 19.8.
 Altitude: Highest, 330 ft.; lowest, sea level.
 Location: On Massachusetts Bay, at mouths of Charles and Mystic Rivers.
 County: Seat of Suffolk Co.
 Churches: Protestant, 253; Roman Catholic, 84; Jewish, 38; others, 74.
 City-owned parks & parkways: 2,710.82 ac.
 Telephones: 364,500.
 Radio sets (Greater Boston Area): 857,549.
 Television sets (Greater Boston Area): 792,309.
 Radio stations: AM, 9; FM, 8.
 Television stations: 4.
 Assessed valuation (1958): \$1,475,608,000.
 City tax rate (1958): \$93 per \$1,000.
 Net bonded debt (1958): \$111,588,963.
 Revenue (1958): \$361,003,258.
 Expenditure (1958): \$350,420,693.

BUFFALO, N. Y.

Incorporated as city: 1832.
 Mayor: Frank A. Sedita (to Dec. 31, 1961).
 1940 population & (rank): 575,901 (14).
 1950 population & (rank): 580,132 (15).
 1940-50 population change: +0.7%.
 1940 area: Land, 42.67 sq. mi.; inland water, 10.8.
 Altitude: Highest, 680 ft.; lowest, 571.
 Location: At east end of Lake Erie, on Niagara River.
 County: Seat of Erie Co.
 Churches: Protestant, 290; Roman Catholic, 82; Jewish, 12; others, 34.
 City-owned parks: 10 public parks (3,000 ac.).
 Telephones (Feb. 1958): 343,710.
 Radio sets: 325,000.
 Television sets: 150,000.
 Radio stations: AM, 7; FM, 4.
 Television stations: 3.
 Assessed valuation (1957-58): \$1,071,052,503.
 City tax rate (1957-58): \$27.43 per \$1,000.
 Net bonded debt (Jan. 1958): \$46,724,358.
 Revenue (1956-57): \$66,868,570.
 Expenditure (1956-57): \$66,301,405.

CHICAGO, ILL.

Incorporated as city: 1837.
 Mayor: Richard J. Daley (to Apr. 1963).
 1940 population & (rank): 3,396,808 (2).
 1950 population & (rank): 3,620,962 (2).
 1940-50 population change: +6.6%.
 1958 area: Land, 224.24 sq. mi.; inland water, 5.37.
 Altitude: Highest, 672 ft.; lowest, 581.
 Location: On lower west shore of Lake Michigan.
 County: Seat of Cook Co.
 Churches: Protestant, 1,119; Roman Catholic, 300; Jewish, 54.*
 City-owned parks: 171.
 Telephones (June 1959): 1,857,035.
 Radio sets (June 1, 1954): 2,315,630.

* Store front churches excluded.

Television sets (1958): 2,713,148.
 Radio stations: AM, 16; FM, 13.
 Television stations: 5.
 Assessed valuation (1958): \$9,798,677,688.
 City tax rate (1958): \$4.230 (north of 87th St.);
 \$4.254 (south of 87th St.). Both per \$100.
 Gross bonded debt (1958): \$210,693,000.
 Revenue (1957): \$503,637,162.
 Expenditure (1957): \$443,281,496.

CINCINNATI, OHIO

Incorporated as city: 1819.
 Mayor: Donald D. Clancy (to Nov. 1959).
 City Manager: C. A. Harrell (Apptd. 1954).
 1940 population & (rank): 455,610 (17).
 1950 population & (rank): 503,998 (18).
 1940-50 population change: +10.6%.
 1959 land area: 76.8 sq. mi.
 Altitude: Highest, 960 ft.; lowest, 441.
 Location: In SW corner of state on Ohio River.
 County: Seat of Hamilton Co.
 Churches: 373.
 City-owned parks: 82 (3,879 ac.).
 Telephones (1959): 321,690.
 Homes with radios (1958): 256,300.*
 Homes with television (1958): 244,750.*
 Radio stations: AM, 8; FM, 3 (Greater Cincinnati).
 Television stations: 4.
 Assessed valuation (1958): \$1,532,086,990.
 City tax rate (1959): \$10.96 per \$1,000.
 Bonded debt (1958): \$157,747,147.
 Revenue (1958): \$68,863,371.
 Expenditure (1958): \$63,965,376.

* Data for Hamilton County.

CLEVELAND, OHIO

Incorporated as city: 1836.
 Mayor: Anthony J. Celebrezze (to Nov. 1959).
 1940 population & (rank): 878,336 (6).
 1950 population & (rank): 914,808 (7).
 1940-50 population change: +4.2%.
 1950 area: 73.1 sq. mi.
 Altitude: Highest, 865 ft.; lowest, 573.
 Location: On Lake Erie at mouth of Cuyahoga River.
 County: Seat of Cuyahoga Co.
 Churches: Protestant, 377; Roman Catholic, 118; Jewish, 36; others, 6.
 City-owned parks: 35 (2,420 ac.).
 Telephones (Mar. 1955): 696,772.*
 Radio sets (1955): 1,102,500.†
 Television sets (1955): 1,195,000.†
 Radio stations: AM, 8; FM, 8.
 Television stations: 3.
 Assessed valuation (1958): \$2,753,900,000.
 City tax rate (1957): \$34.70 per \$1,000.
 Bonded debt (June 1, 1958): \$222,067,000.
 Revenue (1957): \$134,743,015.
 Expenditure (1957): \$108,067,660.

- * Metropolitan area. † Greater Cleveland. ‡ In viewing area.

COLUMBUS, OHIO

Incorporated as city: 1834.
 Mayor: M. E. Sensenbrenner (to Jan. 1960).
 1940 population & (rank): 306,087 (26).
 1950 population & (rank): 375,901 (28).
 1940-50 population change: +22.8%.
 1959 estimated population: 481,820.
 Altitude: Highest, 902 ft.; lowest, 702.

Location: In central part of state, on Scioto River.

County: Seat of Franklin Co.
 Churches: Protestant, 467; Roman Catholic, 38; Jewish, 5.
 City-owned parks: 57 (2,772.81 ac.).
 Telephones (Dec. 1958): 316,725.
 Homes with radios (1958): 195,000.
 Television sets (1958): 165,600.*
 Radio stations: AM, 6.
 Television stations: 3.
 Assessed valuation (1958): \$1,069,849,130.
 City tax rate (1958): \$27.40 per \$1,000.
 Bonded debt (Feb. 18, 1958): \$24,250,198.
 Revenue (1957): \$36,877,773.
 Expenditure (1957): \$24,674,216.

* Metropolitan area.

DALLAS, TEX.

Incorporated as city: 1856.
 Mayor: R. L. Thornton (to May 1961).
 City Manager: Elgin E. Crull (apptd. 1952).
 1940 population & (rank): 294,734 (31).
 1950 population & (rank): 434,462 (22).
 1940-50 population change: +47.4%.
 1959 estimated population: 667,372.
 1959 area: 271.86 sq. mi.
 Altitude: Highest, 685 ft.; lowest, 375.
 Location: In NE part of state, on Trinity River.
 County: Seat of Dallas Co.
 Churches: 715.
 City-owned parks: 115 (7,909 ac.).
 Telephones (Jan. 1, 1959): 394,729.
 Radio sets (1959): 409,000.
 Television homes (1959): 140,000.
 Radio stations: AM, 7; FM, 3.
 Television stations: 2.
 Assessed valuation (1958): \$1,345,000,000.
 Net bonded debt (Sept. 30, 1958): \$103,253,000.
 Revenue (1958-59): \$64,519,729.
 Expenditure (1958-59): \$64,519,729.

DAYTON, OHIO

Incorporated as city: 1805.
 Mayor: R. William Patterson (to Jan. 1962).
 City Manager: Herbert W. Starick (apptd. July 1953).
 1940 population & (rank): 210,718 (40).
 1950 population & (rank): 243,872 (44).
 1940-50 population change: +15.7%.
 1958 estimated population: 296,000.
 1958 land area: 34.7 sq. mi.
 Altitude: Highest 981 ft.; lowest, 727.
 Location: In SW part of state, on Miami River.
 County: Seat of Montgomery Co.
 Churches: Protestant, 300; Roman Catholic, 29; Jewish, 3.
 City-owned parks: 56 (1,550 ac.).
 Telephones (1958): 228,397.
 Radio sets (1958): 179,080.*
 Television sets (1958): 170,390.
 Radio stations (1958): AM, 4; FM, 1.
 Television stations (1958): 2.
 Assessed valuation (1958): \$751,996,370.
 City tax rate (1958): \$10 per \$1,000.†
 Bonded debt (1958): \$35,543,000.
 Revenue (1958 General Fund): \$10,388,080.
 Expenditure (1958 General Fund): \$10,078,987.

* Dwellings only; Metropolitan area. † Dayton also has a ½ of 1% City Income Tax on salaries and net profits of business.

DENVER, COLO.

Incorporated as city: 1861.

Mayor: Richard Y. Batterton (to July 1963).

1940 population & (rank): 322,412 (24).

1950 population & (rank): 415,786 (24).

1940-50 population change: +29.0%.

1959 area: Land, 73.8 sq. mi.; inland water, .85.

Altitude: Highest, 5,470 ft.; lowest, 5,130.

Location: In NE central part of state, on South Platte River.

County: Coextensive with Denver Co.

Churches: Protestant, 331; Roman Catholic, 53; Jewish, 14.

City-owned parks: 100 (1,981 developed acres).

City-owned mountain parks: 28 (13,447.6 ac.).

Families with telephones (1959): 202,068.

Radio stations: AM, 11; FM, 3.

Television stations: 5.

Assessed valuation (1959): \$1,070,893,790.

City tax rate (1959): \$20.60 per \$1,000.

Bonded debt (1959): \$19,262,074.

Revenue (1959): \$78,762,351.

Expenditure (1959): \$70,883,887.

DETROIT, MICH.

Incorporated as city: 1824.

Mayor: Louis C. Miriani (to Jan. 1962).

1940 population & (rank): 1,623,452 (4).

1950 population & (rank): 1,849,568 (5).

1940-50 population change: +13.9%.

1957 area: Land, 139.6 sq. mi.; inland water, 4.1.

Altitude: Highest, 685 ft.; lowest, 574.

Location: In Southeast part of state, on Detroit River.

County: Seat of Wayne Co.

Churches: * Protestant, 1,508; Catholic, 317; Jewish, 48.

City-owned parks: 359 sites (5,839 ac.).

Telephones: 1,481,000.*

Radio sets: 2,166,800.*

Television sets: 1,873,000.*

Radio stations: AM, 12; FM, 16.*

Television stations: 4.

Assessed valuation (1958): \$5,002,088,550.

City tax rate (1958-59): \$24.92 per \$1,000.†

Net bonded debt (June 30, 1958): \$335,585,690.

Revenue (1957-58): \$471,778,096.

Expenditure (1957-58): \$472,329,811.

* Metropolitan area. † Excludes school system.

FORT WORTH, TEX.

Incorporated as city: 1873.

Mayor: Thomas A. McCann (to April 1961).

City Manager: J. F. Davis (apptd. 1958)

1940 population & (rank): 177,662 (46).

1950 population & (rank): 278,778 (38).

1940-50 population change: +56.9%.

1959 estimated population: 399,000.

1959 estimated metropolitan population: 582,000.

1959 area: 147.68 sq. mi.

Altitude: Highest, 780 ft.; lowest, 520.

Location: In N Central part of state, on Trinity River.

County: Seat of Tarrant Co.

Churches: Protestant, 587; Roman Catholic, 19; Jewish, 2.

City-owned parks: 64 (4,924 ac.).

Telephones (1959): 214,605.

Radio sets (1959): 250,000.

Television sets (1959): 200,000.

Radio stations (1959): AM, 6; FM, 1.

Television stations (1959): 2.

Assessed valuation (1958): \$731,193,610.

City tax rate (1958): \$1.78 per \$100.

Bonded debt (1957): \$79,035,210.

Revenue (1957): \$16,967,425.

Expenditure (1957): \$16,767,280.

HONOLULU, HAWAII

Incorporated as city & county: 1909.

Mayor: Neal S. Blaisdell (to Jan. 2, 1961).

1940 population of city: 179,326.

1940 population of city & county: 257,664.

1950 population of city: 248,034.

1950 population of city & county: 353,020.

1959 estimated population of city & county: 449,910.

1959 area of city & county: 604 sq. mi.

Altitude: Highest, 4,025 ft.; lowest, sea level.

Location: County comprises entire island of Oahu; city is on southeast part of island.

Churches: Roman Catholic, 35; Buddhist, 18; Jewish, 1; Protestant & other, 136.

City-owned parks: 2,697.56 ac.

Telephones (1958): 143,189.

Television sets (1959): 99,586.

Radio stations: AM, 5; FM, 1.

Television stations: 3.

Assessed valuation (1959): \$935,702,435.

City tax rate (1959): \$15.15 per \$1,000.

Bonded debt (1959): \$55,545,000.

Revenue (1958): \$33,343,105 (plus 1957 surplus of \$619,360).

Expenditure (1958): \$34,100,857.

HOUSTON, TEX.

Incorporated as city: 1837.

Mayor: Lewis Cutrer (to Jan. 1960).

1940 population & (rank): 384,514 (21).

1950 population & (rank): 596,163 (14).

1940-50 population change: +55.0%.

1959 estimated population: 925,000.

1959 land area: 352 sq. mi.

Altitude: Highest, 54 ft; lowest, sea level.

Location: In SE part of state, near Gulf of Mexico.

County: Seat of Harris Co.

Churches: Approximately 1,272.*

City-owned parks: 140 (4,000 ac.).

Telephones (1959): 478,000.*

Radio sets (1959): 475,000.*

Television sets (1959): 365,000.*

Radio stations (1959): AM, 10; FM, 3.

Television stations (1959): 4.

Assessed valuation (1958): \$2,136,886,180.

City tax rate (1959): \$2 per \$100.

Bonded debt (Feb. 1959): \$224,935,500.

Revenue (1958 General Fund): \$56,820,108.

Expenditure (1958 General Fund): \$53,236,931.

* Metropolitan area (Harris County).

INDIANAPOLIS, IND.

Incorporated as city: 1874.

Mayor: Charles H. Boswell (to Dec. 1959).

1940 population & (rank): 386,972 (20).

1950 population & (rank): 427,173 (23).

1940-50 population change: +10.4%.

1957 official population: 461,654.

1958 estimated metropolitan population: 655,000.

1958 area: Land, 65.0 sq. mi.; inland water, 0.2.

Altitude: Highest, 816 ft.; lowest, 667.
 Location: In central part of state, on West Fork of White River.
 County: Seat of Marion County.
 Churches: 515.
 City-owned parks: 32 (3,519 ac.).
 Telephones (Dec. 1958): 322,337.
 Radio sets: 180,516 (radio families).
 Television sets: 165,800.
 Radio stations: AM, 6; FM, 2.
 Television stations: 3.
 Assessed valuation (1957): \$741,672,550.
 City tax rate (1957): \$6.6674 per \$100.
 Gross debt (Dec. 31, 1956): \$48,643,050.
 Revenue (1956): \$47,557,383.
 Expenditure (1956): \$47,049,566.

JACKSONVILLE, FLA.

Incorporated as city: 1832.
 Mayor: Haydon Burns (to June 1963).
 1940 population & (rank): 173,065 (47).
 1950 population & (rank): 204,517 (49).
 1940-50 population change: +18.2%.
 1950 land area: 30.2 sq. mi.
 Altitude: Highest, 25 ft.; lowest, 10 ft.
 Location: In NE part of state, on St. Johns River near Atlantic Ocean.
 County: Seat of Duval Co.
 Churches: 300.
 City-owned parks: 1,200 ac.
 Telephones (1955): 94,000.
 Radio stations (1955): AM, 7; FM, 2.
 Television stations (1955): 2.
 Assessed valuation (1959): \$352,090,460.
 City tax rate (1959): \$16.30 per \$1,000.
 Bonded debt (1959): \$2,633,000.
 Revenue (1958): \$21,863,745.
 Expenditure (1958): \$21,384,223.

JERSEY CITY, N. J.

Incorporated as city: 1855.
 Mayor: Charles S. Witkowski (to May 1961).
 1940 population & (rank): 301,173 (30).
 1950 population & (rank): 299,017 (37).
 1940-50 population change: -0.7%.
 1940 area: Land, 14.3 sq. mi.; inland water, 7.2.
 Altitude: Highest, 180 ft.; lowest, sea level.
 Location: In NE part of state, on Hudson River and Upper New York Bay.
 County: Seat of Hudson Co.
 Churches: Protestant, 96; Roman Catholic, 39; Jewish, 17; Others, 45.
 Telephones (1958): 86,967.
 Assessed valuation (1958): \$488,443,598.
 City tax rate (1958): \$86.55 per \$1,000.
 Bonded debt (Dec. 31, 1957): \$31,567,000.*
 Revenue (1957): \$54,221,928.
 Expenditure (1957): \$55,679,971.

* Includes bonds and notes authorized and not issued of \$508,000.

KANSAS CITY, MO.

Incorporated as city: 1850.
 Mayor: H. Roe Bartle (to Apr. 1963).
 City Manager: Reed McKinley (acting).
 1940 population & (rank): 399,178 (19).
 1950 population & (rank): 456,622 (20).
 1940-50 population change: +14.4%.
 1959 land area: 129.83 sq. mi.
 Altitude: Highest, 1,014 ft.; lowest, 722 ft.
 Location: In western part of state, at conjunction of Missouri and Kansas Rivers.

County: Located in Jackson & Clay Counties.
 Churches: Protestant, 398; Roman Catholic, 38; Jewish, 6.
 City-owned parks: 58 (3,239 ac.).
 Telephones in Kansas City District Exchange (Apr. 30, 1959): 484,904.
 Television households (est. Jan. 1959): Jackson County, 199,200; Clay County, 18,080.*
 Radio stations (1959): AM, 10; FM, 2.
 Television stations (1959): 3.
 Assessed valuation (1959): \$959,449,190.
 City tax rate (1958-59): \$15 per \$1,000.
 Bonded debt (Apr. 30, 1959): \$62,401,000.
 Revenue (1957-58): \$29,024,424.
 Expenditure (1957-58): \$29,184,233.

* Includes county area not encompassed by city limits of Kansas City, Mo.

LONG BEACH, CALIF.

Founded: 1881.
 Mayor: Ray C. Kealer (to July 1960).
 City Manager: Samuel E. Vickers (apptd. 1949).
 1940 population & (rank): 164,271 (53).
 1950 population & (rank): 250,767 (41).
 1940-50 population change: +52.7%.
 1958 estimated population: 321,930.
 1958 land area: 45.14 sq. mi.
 Altitude: Highest, 170 ft.; lowest, sea level.
 Location: On San Pedro Bay, south of Los Angeles.
 County: In Los Angeles Co.
 Churches: 184.
 City-owned parks: 36 (1,707.24 ac.).
 Telephones (1958): 181,096.
 Radio stations (1957): AM, 2; FM, 3.
 Television stations: None.
 Assessed valuation (1958-59): \$628,806,740.
 City tax rate (1958-59): \$1.324 per \$100.
 Bonded debt (June 30, 1958): \$34,667,823.
 Revenue (1957-58): \$58,741,557.
 Expenditure (excluding bond issues, 1957-58): \$61,246,296.

LOS ANGELES, CALIF.

Incorporated as city: 1850.
 Mayor: Norris Poulson (to June 1961).
 1940 population & (rank): 1,504,277 (5).
 1950 population & (rank): 1,970,358 (4).
 1940-50 population change: +31.0%.
 1956 population (Special U. S. Census): 2,243,901.
 1959 area: 457.61 sq. mi.
 Altitude: Highest, 5,081 ft.; lowest, sea level.
 Location: In SW part of state, on Pacific Ocean.
 County: Seat of Los Angeles Co.
 Churches: 1,434 Catholic, Protestant and Jewish, plus unknown number of others.*
 City-owned parks: 111 (9,674 ac.).
 Telephones (1959): 1,430,000.
 Radio sets in homes (1959): 1,500,000.
 Television sets in homes (1959): 775,000.
 Radio stations (1959): AM, 30; FM, 13 (includes 7 combinations).†
 Television stations (1959): 7.
 Assessed valuation (1958-59): \$4,141,787,220.
 City tax rate (1958-59): \$1.8122 per \$100.
 Gross debt (June 30, 1958): General obligation

* Includes Santa Monica and San Gabriel Valley.
 † Metropolitan area.

bonds, \$208,625,000; revenue bonds, \$354,010,000.
 Revenue (cash receipts, 1957-58): \$492,865,179.
 (Includes bonds sold).
 Expenditure (1957-58): \$474,395,400 (includes capital expenditures).

LOUISVILLE, KY.

Incorporated as city: 1828.
 Mayor: Bruce Hoblitzell (to Dec. 1961).
 1950 population & (rank): 369,129 (30).
 1940-50 population change: +15.7%.
 1959 land area: 58.15 sq. mi.
 Altitude: Highest, 761 ft.; lowest, 382 ft.
 Location: In north central part of state, on Ohio River.
 County: Seat of Jefferson Co.
 Churches*: Protestant, 474; Roman Catholic, 62; Jewish, 6.
 City-owned parks: 7 (2,048 ac.).
 Telephones (1955)†: 153,477.
 Radio sets (1955): 126,660.
 Television sets (1955)†: 157,920.
 Radio stations (1955): AM, 7; FM, 0.
 Television stations (1955): 2.
 Assessed valuation (Jan. 1, 1957): \$720,790,986.
 City tax rate (1958): \$1.50 per \$100 (city purposes only; exclusive of schools).
 Net bonded debt (Dec. 31, 1958): \$53,099,999.
 Revenue (1958): \$18,557,109 (general corporate purposes only).
 Expenditure (1958): \$18,376,321 (general corporate purposes only).
 * Jefferson County. † Metropolitan area.

MEMPHIS, TENN.

Incorporated as city: 1826.
 Mayor: Edmund Orgill (to Jan. 1960).
 1940 population & (rank): 292,942 (32).
 1950 population & (rank): 396,000 (26).
 1940-50 population change: +35.2%.
 1958 population (U. S. special census): 488,550.
 1958 land area: 140.25 sq. mi.
 Altitude: Highest, 320 ft.; lowest, 195.
 Location: In SW corner of state, on Mississippi River.
 County: Seat of Shelby Co.
 Churches: Roman Catholic, 23; Jewish 7; Protestant & other, 626.
 City-owned parks: 104 (2,500 ac.); playgrounds, 48.
 Telephones (May 1, 1958): 213,753.
 Radio sets (Apr. 1, 1958): 158,600.
 Television sets (Mar. 1, 1958): 140,100.
 Radio stations: AM, 9; FM, 1.
 Television stations: 4.
 Assessed valuation (1958): \$984,135,570.
 City tax rate (1953): \$1.80 per \$100.
 Bonded debt (Dec. 31, 1957): \$55,551,306.
 Revenue (1957): \$22,618,791.
 Expenditure (1957): \$22,652,460.

MIAMI, FLA.

Incorporated as city: 1896.
 Mayor: Robert King High (to Nov. 1959).
 City manager: Ira F. Willard (apptd. Mar. 1959).
 1940 population & (rank): 172,172 (48).
 1950 population & (rank): 249,276 (42).
 1940-50 population change: +44.8%.

1958 estimated population: 290,000.
 1958 area: Land, 34.19 sq. mi.; inland water, 19.50.
 Altitude: Average, 12 ft.
 Location: In SE part of state, on Biscayne Bay.
 County: Seat of Dade Co.
 Churches: Metropolitan Miami (Dade County), 480.
 City-owned parks: 50.
 Telephones (1958): 440,195.
 Families with radio sets (1958): 276,654.
 Families with television sets (1958): 243,500.
 Radio stations: AM, 12; FM, 6 (4 AM-FM).
 Television stations: 3 commercial, 1 educational.
 Gross assessed valuation (1958): \$1,044,574,300.
 City tax rate (1958): \$16.85 per \$1,000.
 Net bonded debt (June 30, 1958): \$41,124,885.
 Revenue (1957-58): \$26,667,834.
 Expenditure (1957-58): \$26,152,388.

MILWAUKEE, WIS.

Incorporated as city: 1846.
 Mayor: Frank P. Zeldler (to Apr. 1960).
 1940 population & (rank): 587,472 (13).
 1950 population & (rank): 637,392 (13).
 1940-50 population change: +8.5%.
 1958 land area: 80.56 sq. mi.
 Altitude: 581.22 ft.
 Location: In SE part of state, on Lake Michigan.
 County: Seat of Milwaukee Co.
 Churches: 571 in county.
 County-owned parks: 96 (8,783.11 ac.).
 Telephones (1957): 453,767.
 Radio sets (1955): 286,360.*
 Television sets (1958): 313,892.
 Radio stations: AM, 7; FM, 3.
 Television stations: 4.
 Assessed valuation (1958): \$1,724,189,310.
 City-school tax rate (1959): \$42.45 per \$1,000.
 Gross debt (Dec. 31, 1957): \$80,511,698.
 Revenue (1957): \$124,108,609.
 Expenditure (1959 budget): \$133,045,447.
 * Milwaukee Metropolitan Area.

MINNEAPOLIS, MINN.

Incorporated as city: 1867.
 Mayor: P. Kenneth Peterson (to July 1961).
 1940 population & (rank): 492,370 (16).
 1950 population & (rank): 521,718 (17).
 1940-50 population change: +6.0%.
 1954 area: Land, 58.79 sq. mi.; inland water, 5.0.
 Altitude: Highest, 945 ft.; lowest, 695.
 Location: In SE central part of state, on Mississippi River.
 County: Seat of Hennepin Co.
 Churches: 472.
 City-owned parks: 152.
 Telephones (1958): 307,555.
 Radio sets (1952): 410,000.
 Television sets (1955): 180,000.
 Radio stations: AM, 10; FM, 3.
 Television stations: 5.
 Assessed valuation (1958): \$382,256,907.
 City tax rate (1958): \$1.2598 per \$100.
 Net debt (1957): \$41,890,521.
 Revenue (1956): \$61,533,956.
 Expenditure (1958): \$61,533,956.

NEW ORLEANS, LA.

Incorporated as city: 1805.

Mayor: de Lesseps S. Morrison (to May 1962).

1940 population & (rank): 494,537 (15).

1950 population & (rank): 570,445 (16).

1940-50 population change: +15.3%.

1959 estimated population: 602,700.

1954 area: Land, 199.4 sq. mi.; inland water, 164.1.

Altitude: Highest, 15 ft.; lowest, 4 below sea level.

Location: In SE part of state, between Mississippi River and Lake Pontchartrain.

Parish: Seat of Orleans Parish.

Churches: 625.

City-owned parks: 69 (1,700 ac.).

Telephones (1958): 316,713.

Radio sets (1958): 215,000.

Television sets (1958): 184,000.

Radio stations: AM, 11; FM, 4.

Television stations: 4.

Assessed valuation (1959): \$943,000,000.

City tax rate (1959): \$2.9775 per \$100.

Bonded debt (Jan. 1, 1959): \$87,438,000.

Revenue (1959 operating budget): \$29,177,230.

Expenditure (1959 operating budget): \$29,177,230.

NEW YORK, N. Y.

Chartered as "Greater New York": 1898.

Mayor: Robert F. Wagner (to Dec. 1961).

Borough Presidents: Bronx, James J. Lyons; Brooklyn, John Cashmore; Manhattan, Hulan E. Jack; Queens, John P. Clancy; Richmond, Albert V. Maniscalco.

1940 population & (rank): 7,454,995 (1).

1950 population & (rank): 7,891,957 (1).

1940-50 population change: +5.9%.

1955 area: 319.1 sq. mi.

Altitude: Highest, 430 ft.; lowest, sea level.

Counties: Consists of 5 counties: Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island).

Location: SE part of state, at mouth of Hudson River.

Churches: Protestant, 1,700; Jewish, 1,247; Roman Catholic, 445.

City-owned parks: 1,268 (34,481 ac.)

Telephones: 4,288,402.

Families with radios: 2,410,900.

Television sets: 2,287,700.

Radio stations: AM & FM, 9; AM only, 9; FM only, 8.

Television stations: 6.

Assessed valuation (1958-59): \$22,450,284,947.

City tax rate (1958-59): \$4.16 per \$100.

Bonded debt (June 30, 1958): \$3,147,060,684.

Revenue (1957-58): \$1,995,473,090.

Expenditure (1957-58): \$1,995,473,090.

NEWARK, N. J.

Incorporated as city: 1836.

Mayor: Leo P. Carlin (to July 1962).

1940 population & (rank): 429,760 (18).

1950 population & (rank): 438,776 (21).

1940-50 population change: +2.1%.

1955 area: Land, 23.57 sq. mi.; inland water, 3.2.

Altitude: Highest, 273.4 ft.; lowest, sea level.

Location: In NE part of state, on Passaic River and Newark Bay.

County: Seat of Essex Co.

Churches: Protestant, 159; Roman Catholic, 41; Jewish, 32; others, 57.

City-owned parks: 38 (34.24 ac.).

County-governed parks in city: 7 (755.72 ac.).

Telephones (1955): 270,000.

Radio stations: AM, 4; FM, 3.

Television stations: 1.

Assessed valuation (1959): \$723,820,340.

City tax rate (1959): \$10.20 per \$100.

Net bonded debt (1958): \$32,803,000.

Revenue (1958): \$81,254,378.

Expenditure (1958): \$86,738,326.

NORFOLK, VA.

Incorporated as city: 1845.

Mayor: W. F. Duckworth (to Aug. 31, 1960).

City Manager: Thomas F. Maxwell (apptd. Feb. 1956).

1940 population & (rank): 144,332 (60).

1950 population & (rank): 213,513 (48).

1940-50 population change: +47.9%.

1959 estimated population: 330,323.

1959 land area: 61.84 sq. mi.

Location: In SE part of state, on Elizabeth River and Hampton Roads.

County: Independent city.

Churches: 375.

Telephones (1959): 122,677.

Radio stations (1957): AM, 6; FM, 3.

Television stations (1958): 2.

Assessed valuation (1959): \$440,743,740.

City tax rate (1958): Real and personal, \$3 per \$100; machinery, \$1 per \$100.

Bonded debt (1959): \$55,905,360.

Revenue (1959 anticipated): \$36,497,778.*

Expenditure (1959 budget): \$36,137,440.

* Does not include cash surplus.

OAKLAND, CALIF.

Incorporated as city: 1854.

Mayor: Clifford E. Rishell (to June 1961).

City Manager: Wayne E. Thompson (appt. Aug. 1954).

1940 population & (rank): 302,163 (29).

1950 population & (rank): 384,575 (27).

1940-50 population change: +27.3%.

1959 estimated population: 408,000.

1959 land area: 53.1 sq. mi.

Altitude: Highest, 1,700 ft.; lowest, sea level.

Location: In west central part of state, on east side of San Francisco Bay.

County: Seat of Alameda Co.

Churches: Protestant, 149; Roman Catholic, 21; Jewish, 3; others, 46.

City-owned parks: 943.6 ac.

Telephones (1959): 360,804.*

Radio sets (est. 1959): 772,500.†

Television sets (est. 1959): 273,566.†

Radio stations (1959): AM, 3; FM, 1.

Television stations (1959): 6 (Bay area).

Assessed valuation (1958-59): \$595,853,398.

City tax rate (1958-59): \$2.53 per \$100.

Bonded debt (June 30, 1958): \$19,121,000.

Revenue (1957-58, all funds): \$36,259,334.

Expenditure (1957-58, all funds): \$38,860,541.

* Oakland directory area. † Metropolitan area.

OKLAHOMA CITY, OKLA.

Incorporated as city: 1890.

Mayor: James Norick (to Apr. 1963).

City Manager: Sheldon L. Stirling.

1940 population & (rank): 204,424 (42).

1950 population & (rank): 243,504 (45).
 1940-50 population change: +19.1%.
 1959 land area: 116 sq. mi.
 Altitude: Highest, 1,276 ft.; lowest, 1,070.
 Location: In central part of state, on North Canadian River.
 County: Seat of Oklahoma Co.
 Churches: Protestant & others, 340; Catholic, 15; Jewish, 2.
 City-owned parks: 82 (9,924 ac.).
 Telephones (1959): 188,951.
 Television sets: Not available.
 Radio stations: AM, 8; FM, 2.
 Television stations: 4.
 Assessed valuation (1958): \$366,477,121.*
 City tax rate (1959): \$22.90 per \$1,000.
 Bonded debt (1958): \$67,017,500.
 Revenue (1958): \$10,910,844.
 Expenditure (1958): \$10,847,618.

* Metropolitan Oklahoma City (Oklahoma County)

OMAHA, NEBR.

Incorporated as city: 1857.
 Mayor: John Rosenblatt (to May 1961).
 1940 population & (rank): 223,844 (39).
 1950 population & (rank): 251,117 (40).
 1940-50 population change: +12.2%.
 1950 land area: 48.90 sq. mi.
 Altitude: Highest, 1,270 ft.
 Location: In eastern part of state, on Missouri River.
 County: Seat of Douglas Co.
 Churches: Protestant, 200; Roman Catholic, 37; Jewish, 3.
 City-owned parks: 3,100 ac.
 Telephones (1958): 161,000.
 Radio sets: 88,000.
 Television sets: 85,000
 Radio stations (1958): AM, 6; FM, 0.
 Television stations (1958): 3.
 Assessed valuation (1959): \$483,317,325.
 City tax rate (1958): \$17.90 per \$1,000.
 Bonded debt (Jan. 1, 1959): \$11,457,000.
 Revenue (1958): \$16,536,681.*
 Expenditure (1958): \$14,817,270.

* Balance of revenue on hand on Dec. 31, 1958: \$6,604,874.

PHILADELPHIA, PA.

First charter as city: 1701.
 Mayor: Richardson Dilworth (to Jan. 1960).
 1940 population & (rank): 1,931,334 (3).
 1950 population & (rank): 2,071,605 (3).
 1940-50 population change: +7.3%.
 1958 land area: 129.71 sq. mi.
 Altitude: Highest, 440 ft.; lowest, sea level.
 Location: In SE part of state, at junction of Schuylkill and Delaware Rivers.
 County: Seat of Philadelphia Co.
 Churches: Roman Catholic, 148; Jewish, 136; Protestant and other, 923.
 City-owned parks: 35 (7,645.38 ac.).
 Telephones (1958): 978,747.
 Television sets (1953): 632,153.
 Radio stations: AM, 10; FM, 7.
 Television stations: 3.
 Assessed valuation (1959): \$3,892,179,030.
 City tax rate (1959): \$3.46 per \$100.
 Net bonded debt (Jan. 1, 1959): \$357,451,793 (tax supported).
 Revenue (1958): \$242,694,047.
 Expenditure (1958): \$248,596,768.

PITTSBURGH, PA.

Incorporated as city: 1816.
 Mayor: Thomas J. Gallagher (to Dec. 1959).
 1940 population & (rank): 671,659 (10).
 1950 population & (rank): 676,806 (12).
 1940-50 population change: +0.8%.
 1951 land area: 55.23 sq. mi.
 Altitude: Highest, 1,240 ft.; lowest, 715.
 Location: In SW part of state, at beginning of Ohio River.
 County: Seat of Allegheny Co.
 Churches: Protestant, 1,008; Roman Catholic, 82; Jewish, 11.
 City-owned parks: 25; 11 parklets (2,008 ac.).
 Telephones (1957): 511,351.
 Radio sets (1958): 454,900.
 Television sets (1958): 429,000.*
 Radio stations (1958): AM, 9; FM, 4.
 Television stations (1958): 4.
 Assessed valuation (1958): Land, \$412,403,924; buildings, \$733,310,951.
 City tax rate (1959): Land, \$37 per \$1,000; buildings, \$18.50 per \$1,000.
 Bonded debt (1957): \$46,822,822.
 Revenue (1959): \$54,499,398.
 Expenditure (1959): \$54,499,398.
 * Allegheny County.

PORTLAND, OREG.

Incorporated as city: 1851.
 Mayor: Terry D. Schrunck (to Jan. 1961).
 1940 population & (rank): 305,394 (27).
 1950 population & (rank): 373,628 (29).
 1940-50 population change: +22.3%.
 1958 estimated population: 402,300.
 1957 land area: 70.8 sq. mi.
 Altitude: Highest, 1,073 ft.; lowest, sea level.
 Location: In NW part of state, on Willamette River.
 County: Seat of Multnomah Co.
 Churches: Protestant, 475; Roman Catholic, 35; Jewish, 10; Buddhist, 2.
 City-owned parks: 120 (6,203 ac.).
 Telephones (1957): 247,987.
 Radio stations: AM, 10; FM, 6.
 Television stations: 3.
 Assessed valuation (1958-59): \$1,986,139,745.
 City tax rate (1958-59): \$8.90 per \$1,000 (at 100% of true cash value).
 Bonded debt (June 30, 1958): \$31,976,876.
 Revenue (1958-59): \$55,926,291.
 Expenditure (1958-59): \$55,926,291.

PROVIDENCE, R. I.

Incorporated as city: 1832.
 Mayor: Walter H. Reynolds (to Jan. 1961).
 1940 population & (rank): 253,504 (37).
 1950 population & (rank): 248,674 (43).
 1940-50 population change: -1.9%.
 1940 land area: 17.9 sq. mi.
 Altitude: Highest, 253 ft.; lowest, sea level.
 Location: In northern part of state, at head of Providence River.
 County: Seat of Providence Co.
 Churches: Protestant, 97; Catholic, 30.
 City-owned parks: 33 (815 ac.).
 Radio stations: AM, 6; FM, 3.
 Television stations: 2
 City tax rate (1957): \$35.50 per \$1,000.
 Net bonded debt (Sept. 30, 1958): \$41,900,645.
 Revenue (1958-59 est. budget): \$36,928,473.
 Expenditure (1958-59 est. budget): \$36,882,118.

RICHMOND, VA.

Incorporated as city: 1782.

Mayor: A. Scott Anderson (to June 30, 1960).

City Manager: Horace H. Edwards (Apptd. 1954).

1940 population & (rank): 193,042 (45).

1950 population & (rank): 230,310 (46).

1940-50 population change: +19.3%.

1951 area: 39.89 sq. mi.

Altitude: Highest, 312 ft.; lowest, 0.

Location: In east central part of state, on James River.

County: Administratively independent.

Churches: 344 (metropolitan area).

City-owned recreation facilities: 18 parks, 34 playgrounds, 20 athletic fields, etc.

Radio stations: AM, 6; FM, 4.

Television stations: 4 (in area).

Assessed valuation (1958): \$893,151,185.

City tax rate (1958): Real, \$1.88 per \$100; personal, \$2.20 per \$100; machinery, \$1 per \$100.

Net bonded debt (June 30, 1958): \$44,208,417.

Revenue (1957-58): \$34,944,428.

Expenditure (1957-58): \$33,774,851.

ROCHESTER, N. Y.

Incorporated as city: 1834.

Mayor: Peter Barry (to Dec. 1959).

City Manager: Robert P. Aex (apptd. 1954).

1940 population & (rank): 324,975 (23).

1950 population & (rank): 332,488 (32).

1940-50 population change: +2.3%.

1957 land area: 36.4 sq. mi.

Altitude: Highest, 655 ft.; lowest, 246 ft.

Location: In W. part of state, on Genesee R.

County: Seat of Monroe Co.

Churches: Protestant, 128; Roman Catholic, 38; Jewish, 19; others, 22.

City-owned parks: 23 (2,000 ac.).

Telephones (1958): 214,743.

Radio sets (1958): 174,200.

Television sets (1958): 162,070.

Radio stations: AM, 6; FM, 2.

Television stations: 3.

Assessed valuation (1958-59): \$672,211,128.

City tax rate (1958-59): \$42.06 per \$1,000.

Bonded debt (June 30, 1958): \$17,537,000.

Revenue (1957-58): \$54,211,659.

Expenditure (1957-58): \$52,711,510.

ST. LOUIS, MO.

Incorporated as city: 1822.

Mayor: Raymond E. Tucker (to Apr. 1961).

1940 population & (rank): 816,048 (8).

1950 population & (rank): 856,796 (8).

1940-50 population change: +5.0%.

1953 land area: 61.0 sq. mi.

Altitude: Highest, 605 ft.; lowest, 410 ft.

Location: On Mississippi River.

County: Independent city, not in county.

Churches: 1,102

City-owned parks: 71 (3,198.60 ac.).

Telephones (1959): 734,000 (in service zone).

Radio sets (1958): 610,000 (est.).

Television sets (1958): 640,000 (est.).

Radio stations (1959): AM, 14; FM, 1.

Television stations (1959): 3.

Assessed valuation (1958): \$1,487,338,012.

City tax rate (1959): \$3.68 per \$100.

Bonded debt (1959): \$133,819,000.

Revenue (1958): \$58,425,917.

Expenditure (1958): \$60,650,022.

ST. PAUL, MINN.

Chartered as city: 1853.

Mayor: Joseph E. Dillon (to June 1960).

1940 population & (rank): 287,736 (33).

1950 population & (rank): 311,349 (35).

1940-50 population change: +8.2%.

1959 estimated population: 343,000.

1955 land area: 55.44 sq. mi.

Altitude: Highest, 1,045 ft.; lowest, 683.

Location: In SE central part of state, on Mississippi River.

County: Seat of Ramsey Co.

Churches: Protestant, 250; Catholic, 54; Jewish, 4.

City-owned parks: 5 (2,300 ac.).

Telephones (May 1, 1959): 220,199.

Radio stations: 4.

Television stations: 3.

Assessed valuation (1958): \$233,918,000.

City tax rate (1959): \$115.61 per \$1,000.

Bonded debt (Apr. 30, 1959): Gross, \$62,139,000; net, \$40,027,000.

Revenue (1958): \$68,762,768.

Expenditure (1958): \$69,923,035.

SAN ANTONIO, TEX.

Incorporated as city: 1809.

Mayor: J. Edwin Kuykendall (to May 1961).

City Manager: Lynn H. Andrews (apptd. Feb. 1958).

1940 population & (rank): 253,854 (36).

1950 population & (rank): 408,442 (25).

1940-50 population change: +60.9%.

1958 land area: 160.12 sq. mi.

Altitude: 717 ft.

Location: In south central part of state, on San Antonio River.

County: Seat of Bexar Co.

City-owned parks: Approx. 3,000 ac.

Radio stations (1958): AM, 9; FM, 3.

Television stations (1958): 4.

Assessed valuation (1958): \$793,000,000.

City tax rate (1958): \$1.96 per \$100.

Bonded debt (1958): \$33,885,000.

Revenue (1958): \$23,743,265.

Expenditure (1958): \$23,144,708.

SAN DIEGO, CALIF.

Incorporated as city: 1850; again in 1872.

Mayor: Charles C. Dall (to May 1963).

City Manager: George E. Bean (apptd. Dec. 1957).

1940 population & (rank): 203,341 (43).

1950 population & (rank): 334,387 (31).

1940-50 population change: +64.4%.

1959 est. population: 539,000.

1959 land area: 196 sq. mi.

Altitude: Highest, 822 ft.; lowest, sea level.

Location: In south part of state, on San Diego Bay.

County: Seat of San Diego.

Churches: Roman Catholic, 30; Jewish, 4; Protestant & other, 278.

City-owned parks: 68 (6,417.8 ac.).

Telephones: 207,277.

Radio stations: AM, 9; FM, 2.

Television stations: 2.

Assessed valuation (1958-59): \$720,986,930.

City tax rate (1958-59): \$1.77 per \$100.
 Bonded debt (1959-60): \$36,802,250.
 Revenue (1958-59): \$50,861,723.
 Expenditure (1958-59): \$50,861,723.

SAN FRANCISCO, CALIF.

Incorporated as city: 1850.
 Mayor: George Christopher (to Jan. 1960).
 1940 population & (rank): 634,536 (12).
 1950 population & (rank): 775,357 (11).
 1940-50 population change: +22.2%.
 1959 estimated population: 818,000.
 1950 area: Land, 44.6 sq. mi.; inland water, 48.5.
 Altitude: Highest, 900 ft.; lowest, sea level.
 Location: Between Pacific Ocean and San Francisco Bay.
 County: Coextensive with San Francisco Co.
 Churches (1958): 516 of all denominations.
 City-owned parks & squares (1959): 60.
 Telephones (Jan. 1959): 506,037.
 Homes with radios (1959): 283,000.
 Television sets (1959): 268,000.
 Radio stations (1959): AM, 10; FM, 8.
 Television stations in operation (1959): 5.
 Assessed valuation (1958-59): \$2,003,866,924.
 City tax rate (1958-59): \$7.55 per \$100.
 Bonded debt (July 1, 1958): \$217,900,000.
 General city revenue bonds (1957-58): \$178,734,725.
 General city expenditures (1957-58): \$174,860,979.

SEATTLE, WASH.

Incorporated as city: 1869.
 Mayor: Gordon S. Clinton (to June 1960).
 1940 population & (rank): 368,302 (22).
 1950 population & (rank): 467,591 (19).
 1940-50 population change: +27.0%.
 1958 estimated population: 575,800.
 1957 area: Land, 91.57 sq. mi.; inland water, 12.2.
 Altitude: Highest, 540 ft.; lowest, sea level.
 Location: In west central part of state, on Puget Sound.
 County: Seat of King Co.
 Churches: Protestant, 267; Roman Catholic, 30; Jewish, 6.
 City-owned parks: 183 (3,136 ac.).
 Telephones (1957): 349,682.
 Homes with radios (1957): 246,945.
 Homes with television sets (1957): 312,900.*
 Radio stations: AM, 13; FM, 4.
 Television stations: 6.
 Assessed valuation (1959): \$720,629,180.
 City tax rate (1959): \$60 per \$1,000.
 Bonded debt (Dec. 31, 1958): \$24,615,000.
 General govt. revenue (1958): \$42,569,356.
 General govt. expenditure (1958): \$39,653,015.

* Metropolitan area.

SYRACUSE, N. Y.

Incorporated as city: 1848.
 Mayor: Anthony A. Henninger (Dec. 1961).
 1940 population & (rank): 205,967 (41).
 1950 population & (rank): 220,583 (47).
 1940-50 population change: +7.1%.
 1950 land area: 25.77 sq. mi.
 Altitude: Highest, 840 ft.; lowest, 363.
 Location: Central part of state, at eastern end of Finger Lakes.
 County: Seat of Onondaga Co.

Churches: Protestant, 68; Roman Catholic, 27; Jewish, 8; other, 16.
 City-owned parks: 104.
 Telephones (1959): 114,387 (metro. area).
 Radio sets (1959): 500,000.
 Radio stations: AM, 4; FM, 5.
 Television stations: 2.
 Assessed valuation (1959): Real estate, \$389,-233,037; special franchise, \$20,545,004.
 City tax rate (1959): \$21.898 per \$1,000.
 School tax rate (1959): \$20.444 per \$1,000.
 Bonded debt (Jan. 1, 1959): \$7,084,375.
 Revenue (1959): \$33,962,433.*
 Expenditure (1959): \$33,962,433.

* Includes previous year's surplus as revenue.

TOLEDO, OHIO

Incorporated as city: 1837.
 Mayor: John W. Yager (to Dec. 1959).
 City Manager: Russell W. Rink (apptd. Feb. 1957).
 1940 population & (rank): 282,349 (34).
 1950 population & (rank): 303,616 (36).
 1940-50 population change: +7.5%.
 1959 land area: 44.68 sq. mi.
 Altitude: 587 ft.
 Location: In NW part of state, on Maumee River at Lake Erie.
 County: Seat of Lucas Co.
 Churches: Protestant, 244; Roman Catholic, 31; Jewish, 6; other, 86.
 City-owned parks & playgrounds: 53 (2,150 ac.).
 Telephones (Jan. 1959): 203,036.
 Radio sets (1954): 95,420.
 Television sets (1954): 107,100.
 Radio stations: AM, 4; FM, 4.
 Television stations: 2.
 Assessed valuation (1958): \$841,941,450.
 City tax rate (1958): \$25.50 per \$1,000.
 Bonded debt: All offset by trust fund.
 Revenue (1958): \$30,099,291.
 Expenditure (1958): \$25,628,581.

WASHINGTON, D. C. See index.

WORCESTER, MASS.

Incorporated as town: 1722.
 Incorporated as city: 1848.
 Mayor: Joseph C. Casdin (to Jan. 1960).
 City Manager: Francis J. McGrath (apptd. Apr. 1951).
 1940 population & (rank): 193,694 (44).
 1950 population & (rank): 203,486 (50).
 1940-50 population change: +5.1%.
 1955 population: 202,612.
 1950 land area: 37.0 sq. mi.
 Altitude: Highest, 1,051 ft.; lowest, 359 ft.
 Location: In central part of state.
 County: Seat of Worcester Co.
 Churches: Protestant, 85; Roman Catholic, 30; Jewish, 10.
 City-owned parks: 52 (1,319 ac.).
 Telephones (1955): 82,782.
 Radio sets (1955): 137,453.
 Television sets (1955): 54,981.
 Radio stations (1955): AM, 4; FM, 1.
 Television stations (1955): 1.
 Assessed valuation (1958): \$357,172,050.
 City tax rate (1958): \$71.70 per \$1,000.
 Bonded debt (Dec. 31, 1958): \$30,070,000.
 Revenue (1958): \$48,970,273.
 Expenditure (1958): \$48,970,273.

Tabulated Data on State Governments

Source: Questionnaires to the states.

State	GOVERNOR		LEGISLATURE ¹					HIGHEST COURT ²		
	Term	Annual salary	Membership U ³	L ⁴	Term U ³	L ⁴	Salaries of members ⁵	Members	Term	Annual salary
Alabama.....	4 ⁶	\$25,000	35	106	4	4	\$ 30 per diem	7	6	\$14,000 ¹
Alaska.....	4	25,000	20	40	4	2	3,000 per annum ⁷	3	10	22,500 ⁸
Arizona.....	2	18,500	28	80	2	2	1,800 per annum ⁹	5	6	15,000
Arkansas.....	2	10,000	35	100	4	2	1,200 per biennium	7	8	15,000
California.....	4	40,000	40	80	4	2	6,000 per annum	7	12	23,000 ⁸
Colorado.....	4	20,000	35	65	4	2	4,800 per biennium	7	10	15,000
Connecticut.....	4	15,000	36	279	2	2	600 per term	5	8	19,000 ⁸
Delaware.....	4	17,500	17	35	4	2	3,000 per annum	3	12	17,000 ¹⁰
Florida.....	4 ⁶	22,500	38	95	4	2	1,200 per annum ¹¹	7	6	17,500
Georgia.....	4 ⁶	12,000	54	205	2	2	30 per diem	7	6	18,000
Hawaii.....	4	25,000	25	51	2	4	2,500 per session ²⁰	5	7	22,000 ¹⁰
Idaho.....	4	12,500	44	59	2	2	10 per diem ¹¹	5	6	12,000
Illinois.....	4	25,000	58	177	4	2	12,000 per biennium	7	9	20,000 ¹
Indiana.....	4 ⁶	15,000	50	100	4	2	1,800 per annum	5	6	15,000
Iowa.....	2	20,000	50	108	4	2	30 per diem	9	6	14,500
Kansas.....	2	15,000	40	125	4	2	5 per diem	7	6	12,000 ⁸
Kentucky.....	4 ⁶	15,000	38	100	4	2	25 per diem	7	8	12,000
Louisiana.....	4 ⁶	18,000	39	101	4	4	50 per diem ¹²	7	14	18,000
Maine.....	4	10,000	33	151	2	2	1,400 per session	6	7	11,000 ⁸
Maryland.....	4 ¹³	15,000	29	123	4	4	1,800 per annum	5	15	21,000 ⁸
Massachusetts.....	2	20,000	40	240	2	2	5,200 per annum	7	Life	22,000 ⁸
Michigan.....	2	22,500	34	110	2	2	4,000 per annum	8	8	18,500
Minnesota.....	2	19,000	67	131	4	2	4,800 per session ¹⁴	7	6	19,000 ⁸
Mississippi.....	4 ⁶	15,000	49	140	4	4	3,000 per session	9	8	13,500 ¹⁵
Missouri.....	4 ⁶	25,000	34	157	4	2	1,500 per annum	7	12	17,500
Montana.....	4	12,500	56	94	4	2	20 per diem	5	6	11,000
Nebraska.....	2	11,000	43 ¹⁶		21 ⁶		872 per annum	7	6	12,000
Nevada.....	4	18,000	17	47	4	2	25 per diem ¹⁷	3	6	18,000 ⁸
New Hampshire.....	2	15,500	24	(¹⁸)	2	2	200 per biennium	5	(¹⁹)	15,500
New Jersey.....	4 ¹³	30,000	21	60	4	2	5,000 per annum	7	(²⁰)	24,000 ⁸
New Mexico.....	2 ¹³	17,500	32	66	4	2	20 per diem	5	8	17,500
New York.....	4	50,000	58	150	2	2	7,500 per annum	7	14	36,500 ²¹
North Carolina.....	4 ⁶	15,000	50	120	2	2	15 per diem ²²	7	8	16,000
North Dakota.....	2	10,000	49	113	4	2	5 per diem	5	10	14,000
Ohio.....	4	25,000	33	136	4	2	5,000 per annum	7	6	16,000
Oklahoma.....	4 ⁶	15,000	44	(²³)	4	2	15 per diem	9	6	12,500
Oregon.....	4 ¹³	17,500	30	60	4	2	2,100 per annum	7	6	16,000
Pennsylvania.....	4 ⁶	35,000	50	212	4	2	6,000 per session	7	21	25,900 ¹⁰
Rhode Island.....	2	15,000	44	100	2	2	5 per diem ¹⁷	5	(²⁴)	17,000 ⁸
South Carolina.....	4 ⁶	15,000	46	124	4	2	1,000 per session	5	10	12,500 ⁸
South Dakota.....	2 ¹³	13,000	35	75	2	2	1,800 per biennium	5	6	11,000
Tennessee.....	4 ⁶	12,000	33	99	2	2	10 per diem ²⁵	5	8	15,000 ²⁶
Texas.....	2	25,000	31	150	4	2	25 per diem ²²	(²⁷)	6	20,000
Utah.....	4	12,000	25	64	4	2	500 per annum ²⁸	5	10	12,000
Vermont.....	2	12,500	30	246	2	2	70 per week	5	2	10,500 ¹⁰
Virginia.....	4 ⁶	20,000	40	100	4	2	1,080 per session	7	12	17,500 ⁸
Washington.....	4	15,000	49	99	4	2	1,200 per annum	9	6	20,000
West Virginia.....	4 ⁶	17,500	32	100	4	2	1,500 per annum	5	12	17,500
Wisconsin.....	2	20,000	33	100	4	2	300 per month	7	10	17,500 ¹⁰
Wyoming.....	4	15,000	27	56	4	2	12 per diem	4	8	13,000

¹ Known as General Assembly in Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia; Legislative Assembly in North Dakota, Oregon; General Court in Massachusetts, New Hampshire; Legislature in other states. Meets annually in Alaska, Arizona, California, Colorado, Delaware (after Jan. 1961), Georgia, Hawaii, Kansas, Maryland, Massachusetts, Michigan, Nevada, New Jersey, New York, Rhode Island, South Carolina, West Virginia; biennially in other states. ² Known as Court of Appeals in Kentucky, Maryland, New York; Supreme Court of Appeals in Virginia, West Virginia; Supreme Judicial Court in Massachusetts; Supreme Court of Errors in Connecticut; Supreme Court in other states. ³ Upper house; known as Senate in all states. ⁴ Lower house; known as Assembly in California, Nevada, New York, Wisconsin; House of Delegates in Maryland, Virginia, West Virginia; House of General Assembly in New Jersey; House of Representatives in other states. ⁵ Does not include additional payment for expenses, mileage, etc. ⁶ Cannot succeed himself. ⁷ Plus \$40 per diem while in session. ⁸ Chief Justice's salary is \$1,000 higher. ⁹ Plus \$20 per diem for special sessions, etc. ¹⁰ Chief Justice's salary is \$500 higher. ¹¹ Plus \$15 per diem while in session. ¹² Plus \$150 per month allowance while not in session. ¹³ May not serve a third consecutive term. ¹⁴ House salary; Senate salary is \$9,600. ¹⁵ Chief Justice's salary is \$750 higher. ¹⁶ Unicameral legislature. ¹⁷ For 60 days only. ¹⁸ Varies from 350 to 400. ¹⁹ Until 70 years old. ²⁰ During good behavior; retired at 70. ²¹ Chief Justice's salary is \$2,500 higher. ²² For 120 days. ²³ Varies from 120 to 123. ²⁴ Term of good behavior. ²⁵ For 75 days only. ²⁶ Chief Justice's salary is \$1,500 higher. ²⁷ 9 members in Supreme Court (highest in civil cases); 3 members in Court of Criminal Appeals. ²⁸ Plus \$5 per diem while in session. ²⁹ Per regular session; \$1,500 for each budget session.

Tabulated Data on City Governments

Source: Questionnaires to the cities.

City	MAYOR		City manager's salary ^{1,2}	COUNCIL OR COMMISSION			
	Term, years	Salary ¹		Name	Members	Term, years	Salary ¹
Akron, Ohio.....	2	\$16,000	.....	Council	13	2	\$3,900
Atlanta, Ga.....	4	20,000	.....	Bd. of Aldermen	17	4	300 ¹⁷
Baltimore, Md.....	4	15,000	.....	Council	21	4	4,200 ²⁵
Birmingham, Ala.....	4	10,000	.....	Commission	3	4	13,000
Boston, Mass.....	4	20,000	.....	Council	9	2	5,000
Buffalo, N. Y.....	4	20,000	.....	Council	15	24	6,000 ²⁰
Chicago, Ill.....	4	25,000	.....	Council	50	4	8,000
Cincinnati, Ohio.....	2	10,608	\$30,000	Council	9	2	8,000
Cleveland, Ohio.....	2	25,000	.....	Council	33	2	5,000
Columbus, Ohio.....	4	11,500	.....	Council	7	4	1,000
Dallas, Tex.....	2	20 ⁸	23,625	Council	9	2	20 ⁸
Dayton, Ohio.....	4	1,800	25,000	Commission	5	4	1,200
Denver, Colo.....	4	14,000	.....	Council	9	4	3,000 ¹⁰
Detroit, Mich.....	4	25,000	.....	Council	9	4	12,000
Ft. Worth, Tex.....	2	10 ²¹	19,200	Council	9	2	10 ²²
Honolulu, Hawaii.....	2 ²⁷	20,000	.....	Council	7 ²⁸	2 ²⁷	6,000
Houston, Tex.....	2	20,000	.....	Council	8	2	300 ⁷
Indianapolis, Ind.....	4	13,200	.....	Council	9	4	1,800 ¹⁸
Jacksonville, Fla.....	4	12,000	.....	(²⁸)	(²⁸)	4	(²⁸)
Jersey City, N. J.....	4	12,000	.....	Commission	5	4	11,250
Kansas City, Mo.....	4	15,000	27,500	Council	9 ¹³	4	4,800
Long Beach, Calif.....	3	200 ³	22,500	Council	9	3	200 ³
Los Angeles, Calif.....	4	25,000	.....	Council	15	4	12,000
Louisville, Ky.....	4	12,000	.....	Bd. of Aldermen	12	2	2,400
Memphis, Tenn.....	4	17,500	.....	Commission	5	4	12,000
Miami, Fla.....	2	5,000	18,200	Commission	5	4	5,000
Milwaukee, Wis.....	4	20,000	.....	Council	20	4	7,500
Minneapolis, Minn.....	2	12,000	.....	Council	13	2	7,000
New Orleans, La.....	4	17,500	.....	Council	7	4	7,500
New York, N. Y.....	4	40,000	30,000 ²¹	Council	25	4	7,000
Newark, N. J.....	4	25,000	.....	Council	9	4	6,000 ¹⁸
Norfolk, Va.....	2	3,600	25,000	Council	7	4	2,400
Oakland, Calif.....	4	7,500	25,000	Council	9	4	120 ⁸
Oklahoma City, Okla.....	4	1,000	19,500	Council	8	4	10 ⁵
Omaha, Nebr.....	4	17,500	.....	Council	7	4	3,000
Philadelphia, Pa.....	4	25,000	.....	Council	17	4	12,000 ⁹
Pittsburgh, Pa.....	4	20,000	.....	Council	9	4	10,000
Portland, Oreg.....	4	12,880	.....	Commission	4	4	11,080
Providence, R. I.....	2	15,000	.....	Council	26	2	1,500 ²⁸
Richmond, Va.....	2	1,800	23,000	Council	9 ¹²	2	1,200
Rochester, N. Y.....	2	1,500	22,200	Council	9	4	3,000
St. Louis, Mo.....	4	10,000	.....	Bd. of Aldermen	29	4	3,000 ¹¹
St. Paul, Minn.....	2	10,000	.....	Council	7 ¹²	2	9,000
San Antonio, Tex.....	2	3,000 ¹⁵	22,400	Council	9	2	1,040
San Diego, Calif.....	4	12,000	28,000	Council	6	4	5,000
San Francisco, Calif.....	4	26,400	24,000 ¹⁴	Bd. of Supervisors	11	4	4,800
Seattle, Wash.....	4	15,000	.....	Council	9	4	7,200
Syracuse, N. Y.....	4	20,000	.....	Council	10	2 ¹⁸	3,000 ¹⁹
Toledo, Ohio.....	2	8,200	20,000	Council	9 ²⁴	2	3,600
Worcester, Mass.....	2	5,000	20,000	Council	9	2	4,000

¹ Annual, unless otherwise indicated. ² City Manager's term is indefinite and at will of Council. ³ Per month. ⁴ For 9 District Councilmen; 4 years for 5 Councilmen-at-large. ⁵ Per Council meeting. ⁶ For 3 members; 2 years for 2 members. ⁷ Per month part-time. ⁸ Per council meeting; not over \$1,040 per year. ⁹ President receives \$15,000. ¹⁰ President receives \$4,000. ¹¹ President receives \$5,000. ¹² Including mayor. ¹³ Also \$2,500 in lieu of secretarial expenses; president receives \$6,500. ¹⁴ Chief Administrative Officer; appointed by Mayor, for life. ¹⁵ Plus Council pay. ¹⁶ President and Chairman of Finance Comm. receive \$2,400. ¹⁷ Per month; President receives \$350. ¹⁸ For 5 District Councilmen; 4 years for 4 Councilmen-at-large and President. ¹⁹ President receives \$4,000. ²⁰ President receives \$12,000. ²¹ Appointed at pleasure of Mayor, with title of City Administrator. ²² Per week and per Council meeting. ²³ City has both Council and Commission. Council: members, 9; salary, \$1,500. Commission: members, 5; salary, \$6,000. ²⁴ Including Mayor and Vice-Mayor; latter receives \$5,600. ²⁵ President receives \$6,500, Vice President \$4,725. ²⁶ President receives \$2,000. ²⁷ 4 years beginning Jan. 2, 1961. ²⁸ 9 beginning Jan. 2, 1961.

UNITED STATES STATISTICS

POPULATION

Population Growth of the United States

Source: U. S. Bureau of the Census.

Colonial estimates		National censuses				Projections*	
Year	Population	Year	Population	Land area, sq. mi.	Pop. per sq. mi.	Year	Population†
1610.....	210	1790.....	3,929,214	867,980	4.5	1960.....	NOTE A 181,154,000
1620.....	2,499	1800.....	5,308,483	867,980	6.1	1965.....	198,950,000
1630.....	5,700	1810.....	7,239,881	1,685,865	4.3	1970.....	219,474,000
1640.....	27,947	1820.....	9,638,453	1,753,588	5.5	1975.....	243,880,000
						1980.....	272,557,000
1650.....	51,700	1830.....	12,866,020	1,753,588	7.3		NOTE B 180,126,000
1660.....	84,800	1840.....	17,069,453	1,753,588	9.7	1960.....	180,126,000
1670.....	114,500	1850.....	23,191,876	2,944,337	7.9	1965.....	195,747,000
1680.....	155,600	1860.....	31,443,321	2,973,965	10.6	1970.....	213,810,000
1690.....	213,500	1870.....	39,818,449	2,973,965	13.4	1975.....	235,246,000
						1980.....	259,981,000
1700.....	275,000	1880.....	50,155,783	2,973,965	16.9		NOTE C 179,773,000
1710.....	357,500	1890.....	62,947,714	2,973,965	21.2	1960.....	179,773,000
1720.....	474,388	1900.....	75,994,575	2,974,159	25.6	1965.....	193,643,000
1730.....	654,950	1910.....	91,972,266	2,973,890	30.9	1970.....	208,199,000
1740.....	889,000	1920.....	105,710,620	2,973,776	35.5	1975.....	225,552,000
						1980.....	245,409,000
1750.....	1,207,000	1930.....	122,775,046	2,977,128	41.2		NOTE D 179,420,000
1760.....	1,610,000	1940.....	131,669,275	2,977,128	44.2	1960.....	179,420,000
1770.....	2,205,000	1950.....	151,132,000‡	2,974,726	50.8	1965.....	191,517,000
1780.....	2,781,000	1959§.....	177,128,000‡	3,545,791	50.0	1970.....	202,541,000
						1975.....	215,790,000
						1980.....	230,834,000

* For the United States excluding Alaska and Hawaii. † Figures relate to July 1 and include armed forces overseas. ‡ Including armed forces overseas. § Estimate as of July 1, 1959; figures include Alaska but not Hawaii.

NOTE A: Projection assumes that fertility will average 10% above the 1955-57 level for the whole projection period 1958-80. NOTE B: Projection assumes that fertility will remain constant at the 1955-57 level for the whole projection period 1958-80. NOTE C: Projection assumes that fertility will decline from the 1955-57 level to the 1949-51 level by 1965-70, then remain at this level to 1980. NOTE D: Projection assumes that fertility will decline from the 1955-57 level to the 1942-44 level by 1965-70, then remain at this level to 1980.

Estimates of World Population by Regions, 1650-1957

Source: W. F. Willcox, 1650-1900; United Nations, 1920-1957.

Date	Estimated population in millions						World total
	Africa	North America ¹	Latin America ²	Asia (exc. U.S.S.R.) ³	Europe and Asiatic U.S.S.R. ⁴	Oceania	
1650.....	100	1	7	257	103	2	470
1750.....	100	1	10	437	144	2	694
1850.....	100	26	33	656	274	2	1,091
1900.....	141	81	63	857	423	6	1,571
1920.....	140	117	91	967 ⁴	486 ⁵	8.8	1,810
1930.....	155	135	109	1,073 ⁴	531 ⁵	10.4	2,013
1940.....	170	146	131	1,213 ⁴	572 ⁵	11.3	2,246
1950.....	199	168	163	1,376 ⁴	575 ⁵	13.2	2,493
1957.....	225	189	192	1,556 ⁴	618 ⁵	15.4	2,795

¹ U. S., Alaska, Canada, and St. Pierre and Miquelon. ² Mexico, Central and South America, and Caribbean islands. ³ Estimates for Asia and Europe by Willcox have been adjusted to include population of Asiatic U.S.S.R. with that of Europe rather than Asia. ⁴ Includes Turkey but excludes U.S.S.R. ⁵ Includes U.S.S.R. but excludes Turkey, which is included in Asia. ⁶ Includes allowance for population of U.S.S.R. but excludes Turkey, which is included in Asia.

Distribution of U. S. Population According to Size of Place, 1790 to 1950

Source: U. S. Bureau of the Census.

Census year	Total population	Population distribution (Total for year = 100%)					Number of urban places of specified size		
		Total urban	Urban places of			Total rural	1,000,000 or more	100,000 to 1,000,000	Under 100,000
			1,000,000 or more	100,000 to 1,000,000	Under 100,000				
1790.....	3,929,214	5.1	—	—	5.1	94.9	—	—	24
1800.....	5,308,483	6.1	—	—	6.1	93.9	—	—	33
1810.....	7,239,881	7.3	—	—	7.3	92.7	—	—	46
1820.....	9,638,453	7.2	—	1.3	5.9	92.8	—	1	60
1830.....	12,866,020	8.8	—	1.6	7.2	91.2	—	1	89
1840.....	17,069,453	10.8	—	3.0	7.8	89.2	—	3	128
1850.....	23,191,876	15.3	—	5.1	10.2	84.7	—	6	230
1860.....	31,443,321	19.8	—	8.4	11.4	80.2	—	9	383
1870.....	38,558,371	25.7	—	10.7	15.0	74.3	—	14	649
1880.....	50,155,783	28.2	2.4	10.0	15.8	71.8	1	19	919
1890.....	62,947,714	35.1	5.8	9.6	19.7	64.9	3	25	1,320
1900.....	75,994,575	39.7	8.5	10.2	21.0	60.3	3	35	1,699
1910.....	91,972,266	45.7	9.2	12.9	23.6	54.3	3	47	2,212
1920.....	105,710,620	51.2	9.6	16.3	25.3	48.8	3	65	2,654
1930.....	122,775,046	56.2	12.3	17.3	26.6	43.8	5	88	3,072
1940.....	131,669,275	56.5	12.1	16.8	27.6	43.5	5	87	3,372
1950*.....	150,697,361	59.0	11.5	18.0	29.5	41.0	5	102	3,916
1950†.....	150,697,361	64.0	11.5	17.9	34.6	36.0	5	101	4,635

* Old urban definition. † New urban definition.

White and Negro Population by State, 1950 Census

Source: U. S. Bureau of the Census.

State	White	Negro	Other	State	White	Negro	Other
Alabama.....	2,079,591	979,617	2,535	Nebraska.....	1,301,328	19,234	4,948
Arizona.....	654,511	25,974	69,102	Nevada.....	149,908	4,302	5,873
Arkansas.....	1,481,507	426,639	1,365	New Hampshire..	532,275	731	236
California.....	9,915,173	462,172	208,878	New Jersey.....	4,511,585	318,565	5,179
Colorado.....	1,296,653	20,177	8,259	New Mexico.....	630,211	8,408	42,568
Connecticut.....	1,952,329	53,472	1,479	New York.....	13,872,095	918,191	39,906
Delaware.....	273,878	43,598	609	North Carolina...	2,983,121	1,047,353	31,455
D. C.....	517,865	280,803	3,510	North Dakota.....	608,448	257	10,931
Florida.....	2,166,051	603,101	2,153	Ohio.....	7,428,222	513,072	5,333
Georgia.....	2,380,577	1,062,762	1,239	Oklahoma.....	2,032,526	145,503	55,322
Idaho.....	581,395	1,050	6,192	Oregon.....	1,497,128	11,529	12,684
Illinois.....	8,046,058	645,980	20,138	Pennsylvania.....	9,853,848	638,485	5,679
Indiana.....	3,758,512	174,168	1,544	Rhode Island.....	777,015	13,903	978
Iowa.....	2,599,546	19,692	1,835	South Carolina...	1,293,405	822,077	1,545
Kansas.....	1,828,961	73,158	3,180	South Dakota.....	628,504	727	23,509
Kentucky.....	2,742,090	201,921	795	Tennessee.....	2,760,257	530,603	858
Louisiana.....	1,796,683	882,428	4,405	Texas.....	6,726,534	977,458	7,202
Maine.....	910,846	1,221	1,707	Utah.....	676,909	2,729	9,224
Massachusetts...	1,954,975	385,972	2,054	Vermont.....	377,188	443	116
Michigan.....	4,611,503	73,171	5,840	Virginia.....	2,581,555	734,211	2,914
Minnesota.....	5,917,825	442,296	11,645	Washington.....	2,316,496	30,691	31,776
Mississippi.....	2,953,697	14,022	14,764	West Virginia.....	1,890,282	114,867	403
Missouri.....	1,188,632	986,494	3,788	Wisconsin.....	3,392,690	28,182	13,703
Montana.....	3,655,593	297,088	1,972	Wyoming.....	284,009	2,557	3,963
	572,038	1,232	17,754	TOTAL U. S.....	134,942,028	15,042,286	713,047

Distribution of U. S. Population by Race, 1850-1950

Source: U. S. Bureau of the Census.

Year	White	Nonwhite					Total Nonwhite
		Negro	Indian	Japanese	Chinese	All other	
1850.....	19,553,068	3,638,808	.....	.....	.....	.....	3,638,808
1860.....	26,922,537	4,441,830	44,021	.....	34,933	.....	4,520,784
1870.....	33,589,377	4,880,009	25,731	55	63,199	.....	4,968,994
1880.....	43,402,970	6,580,793	66,407	148	105,465	.....	6,752,813
1890.....	55,101,258	7,488,676	248,253	2,039	107,488	.....	7,846,456
1900.....	66,809,196	8,833,994	237,196	24,326	89,863	.....	9,185,379
1910.....	81,731,957	9,827,763	265,683	72,157	71,531	3,175	10,240,309
1920.....	94,820,915	10,463,131	244,437	111,010	61,639	9,488	10,889,705
1930.....	110,286,740	11,891,143	332,397	138,834	74,954	50,978	12,488,306
1940.....	118,214,870	12,865,518	333,969	126,947	77,504	50,467	13,454,405
1950.....	134,942,028	15,042,286	343,410	141,768	117,629	110,240	15,755,333
Urban.....	86,756,435	9,392,608	56,108	100,735	109,434	52,366	9,711,251
Rural nonfarm.....	28,470,339	2,491,377	178,678	14,260	5,844	20,827	2,710,986
Rural farm.....	19,715,254	3,158,301	108,624	26,773	2,351	37,047	3,333,096

United States Population Distribution by Age, Race, Nativity and Sex, 1850-1958

Source: Mortimer Spiegelman, *Introduction to Demography*, and Bureau of Census

Year	Total	Age					Race and Nativity			
		Under 5	5-19	20-44	45-64	65 and over	White			Nonwhite
							Total	Native born	Foreign born	
Per cent distribution										
1850*	100.0	15.1	37.4	35.1	9.8	2.6	84.3	74.6	9.7	15.7
1860†	100.0	15.4	35.8	35.7	10.4	2.7	85.6	72.6	13.0	14.4
1870†	100.0	14.3	35.4	35.4	11.9	3.0	87.1	72.9	14.2	12.9
1880†	100.0	13.8	34.3	35.9	12.6	3.4	86.5	73.4	13.1	13.5
1890†	100.0	12.2	33.9	36.9	13.1	3.9	87.5	73.0	14.5	12.5
1900	100.0	12.1	32.3	37.8	13.7	4.1	87.9	74.5	13.4	12.1
1910	100.0	11.6	30.4	39.1	14.6	4.3	88.9	74.4	14.5	11.1
1920	100.0	11.0	29.8	38.4	16.1	4.7	89.7	76.7	13.0	10.3
1930	100.0	9.3	29.5	38.3	17.5	5.4	89.8	78.4	11.4	10.2
1940	100.0	8.0	26.4	38.9	19.8	6.9	89.8	81.1	8.7	10.2
1950§	100.0	10.7	23.2	37.7	20.3	8.1	89.5	82.8	6.7	10.5
1958§	100.0	11.2	26.7	33.3	20.2	8.6	88.9	¶	¶	11.1
Males per 100 females										
1850*	104.3	102.4	100.9	108.1	106.4	101.3	105.2	103.1	123.8	99.1
1860†	104.7	102.4	101.2	107.9	111.5	98.3	105.3	103.7	115.1	101.2
1870†	102.2	102.9	101.2	99.2	114.5	100.5	102.8	100.6	115.3	98.4
1880†	103.6	103.0	101.3	104.0	110.2	101.4	104.0	102.1	115.9	100.7
1890†	105.0	103.6	101.4	107.3	108.3	104.2	105.4	102.9	118.7	102.2
1900	104.4	102.1	100.9	105.8	110.7	102.0	104.9	102.8	117.4	101.0
1910	106.0	102.5	101.3	108.1	114.4	101.1	106.6	102.7	129.2	101.3
1920	104.0	102.5	100.8	102.8	115.2	101.3	104.4	101.7	121.7	100.9
1930	102.5	103.0	101.4	100.5	109.1	100.5	102.9	101.1	115.8	99.1
1940	100.7	103.2	102.0	98.1	105.2	95.5	101.2	100.1	111.1	96.7
1950§	99.0	103.9	102.9	97.0	100.2	89.6	99.4	99.0	103.9	96.2
1958§	98.1	103.8	104.0	97.6	95.0	83.7	98.4	¶	¶	95.6

* Excludes nonwhite races other than Negro. † Excludes Indians in Indian Territory and on Indian reservations. ‡ The age figures exclude all persons residing on Indian reservations, whether white or nonwhite; these persons are included in the race and nativity distributions. § Includes armed forces overseas and other persons abroad. ¶ Not available. NOTE: For 1850 and 1860, the data in the census reports at ages 40-49 and 60-69 are published in 10-year age groupings; these were subdivided into 5-year age groupings by the author.

U. S. Population by Age, Sex and Race, July 1, 1958

Source: U. S. Bureau of the Census.

Age	White		Nonwhite		Total	
	Male	Female	Male	Female	Male	Female
Under 5 years.....	8,544,000	8,187,000	1,392,000	1,383,000	9,936,000	9,569,000
Under 1 year.....	1,662,000	1,593,000	270,000	271,000	1,932,000	1,864,000
1 and 2 years.....	3,440,000	3,299,000	570,000	563,000	4,010,000	3,862,000
3 and 4 years.....	3,442,000	3,294,000	552,000	549,000	3,994,000	3,843,000
5 to 9 years.....	8,075,000	7,699,000	1,263,000	1,249,000	9,339,000	8,948,000
10 to 14 years.....	7,011,000	6,692,000	958,000	954,000	7,969,000	7,645,000
15 to 19 years.....	5,577,000	5,383,000	763,000	766,000	6,340,000	6,149,000
20 to 24 years.....	4,827,000	4,741,000	668,000	684,000	5,495,000	5,425,000
25 to 29 years.....	4,993,000	4,958,000	620,000	676,000	5,612,000	5,635,000
30 to 34 years.....	5,345,000	5,493,000	609,000	703,000	5,953,000	6,196,000
35 to 39 years.....	5,396,000	5,575,000	584,000	652,000	5,980,000	6,227,000
40 to 44 years.....	5,035,000	5,211,000	520,000	592,000	5,555,000	5,803,000
45 to 49 years.....	4,755,000	4,919,000	507,000	562,000	5,262,000	5,480,000
50 to 54 years.....	4,174,000	4,319,000	426,000	446,000	4,600,000	4,765,000
55 to 59 years.....	3,593,000	3,801,000	354,000	370,000	3,947,000	4,170,000
60 to 64 years.....	3,101,000	3,382,000	265,000	275,000	3,365,000	3,657,000
65 to 69 years.....	2,484,000	2,775,000	185,000	197,000	2,669,000	2,972,000
70 to 74 years.....	1,821,000	2,142,000	128,000	138,000	1,948,000	2,280,000
75 to 79 years.....	1,174,000	1,511,000	91,000	106,000	1,265,000	1,617,000
80 to 84 years.....	574,000	776,000	46,000	52,000	621,000	828,000
85 years and over.....	312,000	442,000	39,000	48,000	351,000	490,000
All ages.....	76,790,000	78,005,000	9,416,000	9,853,000	86,206,000	87,858,000
5 years.....	1,686,000	1,607,000	268,000	265,000	1,954,000	1,872,000
6 to 13 years.....	12,163,000	11,594,000	1,789,000	1,774,000	13,952,000	13,368,000
14 years and over.....	54,398,000	56,617,000	5,966,000	6,432,000	60,365,000	63,048,000
18 years and over.....	49,629,000	52,021,000	5,333,000	5,794,000	54,962,000	57,815,000
21 years and over.....	46,577,000	49,067,000	4,896,000	5,358,000	51,473,000	54,426,000
65 years and over.....	6,365,000	7,647,000	488,000	540,000	6,854,000	8,187,000
Median age, years.....	29.4	31.2	22.5	24.2	28.6	30.4

NOTE: Data relate to the total population of the continental United States, including the armed forces overseas.

Immigrants and Emigrants; United States, 1911-1958

Source: U. S. Immigration and Naturalization Service and U. S. Bureau of the Census.

Period*	Immigrants	Emigrants	Excess of immigrants over emigrants	Period*	Immigrants	Emigrants	Excess of immigrants over emigrants
1911-15.....	4,459,831	1,444,530	3,015,301	1941-45.....	170,952	42,696	128,256
1916-20.....	1,275,980	702,464	573,516	1946-50.....	864,087	113,703	750,384
1921-25.....	2,638,913	697,397	1,941,516	1951-55.....	1,087,638	134,220	953,418
1926-30.....	1,468,296	347,679	1,120,617	1956-57.....	648,492	64,757	601,735
1931-35.....	220,209	323,863	-103,654	1957-58.....	253,265	(†)	..
1936-40.....	308,222	135,875	172,347				

* Fiscal years ending June 30. † Not available.

Persons Naturalized Since 1907

Source: U. S. Immigration and Naturalization Service.

Period*	Civilian	Military	Total	Period*	Civilian	Military	Total
1907-10.....	111,738	.....	111,738	1953.....	90,476	1,575	92,051
1911-20.....	884,672	244,300	1,128,972	1954.....	104,086	13,745	117,831
1921-30.....	1,716,979	56,206	1,773,185	1955.....	197,568	11,958	209,526
1931-40.....	1,498,573	19,891	1,518,464	1956.....	138,681	7,204	145,885
1941-50.....	1,837,229	149,799	1,987,028	1957.....	137,198	845	138,043
1951.....	53,741	975	54,716	1958.....	118,950	916	119,866
1952.....	87,070	1,585	88,655	1907-58.....	6,976,961	508,999	7,485,960

* Fiscal years ending June 30.

Immigration by Country of Origin, 1820 to 1958

Source: Immigration and Naturalization Service.

(Figures are totals, not annual averages, and were tabulated as follows: 1820-67, alien passengers arrived; 1868-91 and 1895-97, immigrant aliens arrived; 1892-94 and 1898 to present, immigrant aliens admitted. Data before 1906 relate to country whence alien came; since 1906, to country of last permanent residence.)

Countries	1820-1910	1911-1920	1921-1930	1931-1940	1941-1950	1951-1958	1820-1958
Europe:							
Albania ¹			1,663	2,040	85	42	2,167
Austria ²	3,172,461	453,649	32,868	3,563	24,860	59,698	3,747,099
Belgium	103,796	33,746	15,846	4,817	12,189	15,984	186,378
Bulgaria ³	39,440	22,533	2,945	938	375	74	66,305
Czechoslovakia ¹		3,426	102,194	14,393	8,347	530	128,890
Denmark	258,053	41,983	32,430	2,559	5,393	8,555	348,973
Estonia ¹			1,576	506	212	141	859
Finland ¹		756	16,691	2,146	2,503	3,889	25,985
France	470,868	61,897	49,610	12,623	38,809	39,316	673,123
Germany ²	5,351,746	143,945	412,202	114,058	226,578	416,274	6,664,803
Great Britain: England	2,212,071	249,944	157,420	21,756	112,252	124,650	2,878,093
Scotland	488,749	78,357	159,781	6,887	16,131	26,561	776,466
Wales	59,540	13,107	13,012	735	3,209	2,111	91,714
Not specified ⁴	793,741					3,469	797,210
Greece	186,204	184,201	51,084	9,119	8,973	39,362	478,943
Hungary ²		442,693	30,680	7,861	3,469	7,368	492,071
Ireland	4,212,169	146,181	220,591	13,167	26,967	43,819	4,662,894
Italy	3,086,356	1,109,524	455,315	68,028	57,661	155,318	4,932,202
Latvia ¹			3,399	1,192	361	239	1,792
Lithuania ¹			6,015	2,201	683	121	3,005
Luxemburg ¹			727	565	820	546	1,931
Netherlands	175,943	43,718	26,948	7,150	14,860	39,345	307,964
Norway ⁵	665,189	66,395	68,531	4,740	10,100	18,212	833,167
Poland ⁶	165,182	4,813	227,734	17,026	7,571	2,969	425,295
Portugal	132,989	89,732	29,994	3,329	7,423	10,191	273,658
Rumania ⁷	72,117	13,311	67,646	3,871	1,076	542	158,563
Spain	69,296	68,611	28,958	3,258	2,898	5,304	178,325
Sweden ⁸	1,021,165	95,074	97,249	3,960	10,665	16,905	1,245,018
Switzerland	237,401	23,091	29,676	5,512	10,547	13,690	319,917
Turkey in Europe	85,800	54,677	14,659	737	580	1,693	158,146
U.S.S.R. ⁴	2,359,048	921,201	61,742	1,356	548	267	3,344,162
Yugoslavia ⁹		1,888	49,064	5,835	1,576	5,479	63,842
Other Europe	2,605	8,111	9,603	2,361	3,983	7,260	47,303
Total Europe	25,421,929	4,376,564	2,477,853	348,289	621,704	1,069,924	34,316,263
Asia:							
China	326,060	21,278	29,907	4,928	16,709	6,575	405,457
India	5,409	2,082	1,886	496	1,761	1,378	13,012
Japan ⁹	158,344	83,837	33,462	1,948	1,555	34,303	313,449
Turkey in Asia ¹⁰	106,481	79,389	19,165	328	218	437	206,018
Other Asia	16,942	5,973	12,980	7,644	11,537	57,897	112,973
Total Asia¹⁰	613,236	192,559	97,400	15,344	31,780	100,590	1,050,909
America:							
Canada & Newfoundland ¹¹	1,230,501	742,185	924,515	108,527	171,718	296,685	3,474,131
Central America	10,365	17,159	15,769	5,861	21,665	31,996	102,815
Mexico ¹²	77,645	219,004	459,287	22,319	60,589	244,194	1,083,038
South America	29,385	41,899	42,215	7,803	21,831	62,269	205,402
West Indies	233,146	123,424	74,899	15,502	49,725	97,346	594,042
Other America ¹³			31	25	29,276	51,868	81,200
Total America	1,581,042	1,143,671	1,516,716	160,037	354,804	784,358	5,540,628
Africa:							
Australia & New Zealand	9,581	8,443	6,286	1,750	7,367	10,175	43,602
Pacific Islands ¹⁵	31,654	12,348	8,299	2,231	13,805	7,736	76,073
Countries not specified	8,859	1,079	427	780	5,437	4,166	20,748
	252,691 ¹⁴	1,147	228	.....	142	12,446	266,654
Total all countries	27,918,992	5,735,811	4,107,209	528,431	1,035,039	1,989,395	41,314,877

¹ Countries established since beginning of World War I are theretofore included with countries to which they belonged. ² Data for Austria-Hungary not reported until 1861. Austria and Hungary recorded separately after 1905. Austria included with Germany 1938-45. ³ Bulgaria, Serbia, Montenegro first reported in 1899. Bulgaria reported separately since 1920. In 1920, separate enumeration for Kingdom of Serbs, Croats, Slovenes; since 1922, recorded as Yugoslavia. ⁴ United Kingdom not specified; for 1901-51, included in "Other Europe." ⁵ Norway included with Sweden 1820-68. ⁶ Included with Austria-Hungary, Germany and Russia 1899-1919. ⁷ No record of immigration until 1880. ⁸ Since 1931, U.S.S.R. has been broken down into European Russia and Siberia or Asiatic Russia. ⁹ No record of immigration until 1891. ¹⁰ No record of immigration until 1869. ¹¹ Includes all British North American possessions 1820-98. ¹² No record of immigration 1886-93. ¹³ Included with "Countries not specified" prior to 1925. ¹⁴ Includes 32,897 persons returning in 1906 to their homes in U.S. ¹⁵ From 1952, Asia included Philippines. From 1934-51, Philippines included in Pacific Islands; before 1934, recorded in separate tables as insular travel.

United States Population by State, 1790 to 1958

Source: U. S. Bureau of the Census.

States	Population			1950			July 1, 1958	
	1790	1850	1900	Population	Land area, sq. mi.	Pop. per sq. mi.	Population	Rank
Alabama.....		771,623	1,828,697	3,061,743	51,078	59.9	3,211,000	19
Alaska.....			63,592	128,643	571,065	(§)	211,000†	(†)
Arizona.....			122,931	749,587	113,575	6.6	1,140,000	35
Arkansas.....		209,897	1,311,564	1,909,511	52,675	36.6	1,766,000	32
California.....		92,597	1,485,053	10,586,223	156,740	67.5	14,337,000	2
Colorado.....			539,700	1,325,089	103,922	12.8	1,711,000	33
Connecticut.....	237,946	370,792	908,420	2,007,280	4,899	409.7	2,316,000	26
Delaware.....	59,096	91,532	184,735	318,085	1,978	160.8	454,000	45
D. C.....		51,687	278,718	802,178	61	13,150.5	825,000	..
Florida.....		87,445	528,542	2,771,305	54,262	51.1	4,442,000	12
Georgia.....	82,548	906,185	2,216,331	3,444,578	58,483	58.9	3,818,000	16
Hawaii.....			154,001	499,794	6,407	78.0	613,000†	(†)
Idaho.....			161,772	588,637	82,769	7.1	662,000	42
Illinois.....		851,470	4,821,550	8,712,176	55,935	155.8	9,889,000	4
Indiana.....		988,416	2,516,462	3,934,224	36,205	108.7	4,581,000	10
Iowa.....		192,214	2,231,853	2,621,073	56,045	46.8	2,822,000	23
Kansas.....			1,470,495	1,905,299	82,108	23.2	2,116,000	29
Kentucky.....	73,677	982,405	2,147,174	2,944,806	39,864	73.9	3,080,000	21
Louisiana.....		517,762	1,381,625	2,683,516	45,162	59.4	3,110,000	20
Maine.....	96,540	583,169	694,466	913,774	31,040	29.4	952,000	36
Maryland.....	319,728	583,034	1,188,044	2,343,001	9,881	237.1	2,956,000	22
Massachusetts.....	378,787	994,514	2,805,346	4,690,514	7,867	596.2	4,862,000	9
Michigan.....		397,654	2,420,982	6,371,766	57,022	111.7	7,866,000	7
Minnesota.....		6,077	1,751,394	2,982,483	80,009	37.3	3,375,000	18
Mississippi.....		606,526	1,551,270	2,178,914	47,248	46.1	2,186,000	28
Missouri.....		682,044	3,106,665	3,954,653	69,226	57.1	4,271,000	13
Montana.....			243,329	591,024	145,878	4.1	688,000	41
Nebraska.....			1,066,300	1,325,510	76,663	17.3	1,457,000	34
Nevada.....			42,335	160,083	109,789	1.5	267,000	48
New Hampshire.....	141,885	317,976	411,588	533,242	9,017	59.1	584,000	44
New Jersey.....	184,139	489,555	1,883,669	4,835,329	7,522	642.8	5,749,000	8
New Mexico.....		61,547	195,310	681,187	121,511	5.6	842,000	39
New York.....	340,120	3,097,394	7,268,894	14,830,192	47,944	309.3	16,229,000	1
North Carolina.....	393,751	869,039	1,893,810	4,061,929	49,097	82.7	4,549,000	11
North Dakota.....			319,146	619,636	70,057	8.8	650,000	43
Ohio.....		1,980,329	4,157,545	7,946,627	41,000	193.8	9,345,000	6
Oklahoma.....			790,391*	2,233,351	69,031	32.4	2,285,000	27
Oregon.....		13,294	413,536	1,521,341	96,315	15.8	1,773,000	31
Pennsylvania.....	434,373	2,311,786	6,302,115	10,498,012	45,045	233.1	11,101,000	3
Rhode Island.....	68,825	147,545	428,556	791,896	1,058	748.5	875,000	37
South Carolina.....	249,073	668,507	1,340,316	2,117,027	30,305	69.9	2,404,000	25
South Dakota.....			401,570	652,740	76,536	8.5	699,000	40
Tennessee.....	35,691	1,002,717	2,020,616	3,291,718	41,797	78.8	3,469,000	17
Texas.....		212,592	3,048,710	7,711,194	263,513	29.3	9,377,000	5
Utah.....		11,380	276,749	688,862	82,346	8.4	865,000	38
Vermont.....	85,425	314,120	343,641	377,747	9,278	40.7	372,000	46
Virginia.....	747,610	1,421,661	1,854,184	3,318,680	39,893	83.2	3,935,000	15
Washington.....			518,103	2,378,963	66,786	35.6	2,769,000	24
West Virginia.....			958,800	2,005,552	24,080	83.3	1,969,000	30
Wisconsin.....		305,391	2,069,042	3,434,575	54,705	62.8	3,938,000	14
Wyoming.....			92,531	290,529	97,506	3.0	320,000	47

* Includes population of Indian Territory: 1900, 392,960. † July 1, 1957. ‡ Not officially in Union as of July 1, 1958. § 23 persons per 100 sq. mi.

Population and Area of Major U. S. Cities,

Census Years, 1920-1950

(Over 50,000 population in 1950)

Source: U. S. Bureau of the Census.

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area sq. mi.*
Akron, Ohio	208,435	255,040	244,791	274,605	12.2	39	53.7
Alameda, Calif.	28,806	35,033	36,256	64,430	77.7	184	10.7
Albany, N. Y.	113,344	127,412	130,577	134,995	3.4	68	19.0
Albuquerque, N. Mex.	15,157	26,570	35,449	96,815	173.1	112	47.9
Alexandria, Va.	18,060	24,149	33,523	61,787	84.3	192	7.5
Alhambra, Calif.	9,096	29,472	38,935	51,359	31.9	224	7.0
Allentown, Pa.	73,502	92,563	96,904	106,756	10.2	99	15.9
Altoona, Pa.	60,331	82,054	80,214	77,177	-3.8	150	10.0
Amarillo, Tex.	15,494	43,132	51,686	74,246	43.6	155	20.9
Asheville, N. C.	28,504	50,193	51,310	53,000	3.3	215	14.5
Atlanta, Ga.	200,616	270,366	302,288	331,314	9.6	33	36.9
Atlantic City, N. J.	50,707	66,198	64,094	61,657	-3.8	193	11.5
Augusta, Ga.	52,548	60,342	65,919	71,508	8.5	165	9.8
Aurora, Ill.	36,397	46,589	47,170	50,576	7.2	230	8.1
Austin, Tex.	34,876	53,120	87,930	132,459	50.6	72	32.1
Baltimore, Md.	733,826	804,874	859,100	949,708	10.5	6	78.7
Baton Rouge, La.	21,782	30,729	34,719	125,629	261.8	81	30.2
Bay City, Mich.	47,554	47,355	47,956	52,523	9.5	218	9.6
Bayonne, N. J.	76,754	88,979	79,198	77,203	-2.5	149	5.2
Beaumont, Tex.	40,422	57,732	59,061	94,014	59.2	118	31.4
Berkeley, Calif.	56,036	82,109	85,547	113,805	33.0	90	9.5
Berwyn, Ill.	14,150	47,027	48,451	51,280	5.8	228	3.8
Bethlehem, Pa.	50,358	57,892	58,490	66,340	13.4	176	18.6
Binghamton, N. Y.	66,800	76,662	78,309	80,674	3.0	139	10.1
Birmingham, Ala.	178,806	259,678	267,583	326,037	21.8	34	65.3
Boston, Mass.	748,060	781,188	770,816	801,444	4.0	10	47.8
Bridgeport, Conn.	143,555	146,716	147,121	158,709	7.9	63	14.6
Brockton, Mass.	66,254	63,797	62,343	62,860	0.8	191	21.4
Buffalo, N. Y.	506,775	573,076	575,901	580,132	0.7	15	39.4
Burbank, Calif.	2,913	16,662	34,337	78,577	128.8	146	16.8
Cambridge, Mass.	109,694	113,643	110,879	120,740	8.9	86	6.2
Camden, N. J.	116,309	118,700	117,536	124,555	6.0	85	8.6
Canton, Ohio	87,091	104,906	108,401	116,912	7.9	88	14.1
Cedar Rapids, Iowa	45,566	56,097	62,120	72,296	16.4	161	25.4
Charleston, S. C.	67,957	62,265	71,275	70,174	-1.5	170	5.1
Charleston, W. Va.	39,608	60,408	67,914	73,501	8.2	159	9.6
Charlotte, N. C.	46,338	82,675	100,899	134,042	32.8	69	30.0
Chattanooga, Tenn.	57,895	119,798	128,163	131,041	2.2	73	28.0
Chester, Pa.	58,030	59,164	59,285	66,039	11.4	179	4.7
Chicago, Ill.	2,701,705	3,376,438	3,396,808	3,620,962	6.6	2	207.5
Cicero, Ill.	44,995	66,602	64,712	67,544	4.4	173	5.8
Cincinnati, Ohio	401,247	451,160	455,610	503,998	10.6	18	75.1
Cleveland, Ohio	796,841	900,429	878,336	914,808	4.2	7	75.0
Cleveland Heights, Ohio	15,236	50,945	54,992	59,141	7.5	198	8.2
Clifton, N. J.	26,470	46,875	48,827	64,511	32.1	182	11.7
Columbia, S. C.	37,524	51,581	62,396	86,914	39.3	129	12.8
Columbus, Ga.	31,125	43,131	53,280	79,611	49.4	142	12.0
Columbus, Ohio	237,031	290,564	306,087	375,901	22.8	28	39.4
Corpus Christi, Tex.	10,522	27,741	57,301	108,287	89.0	97	21.5
Covington, Ky.	57,121	65,252	62,018	64,452	3.9	183	6.4
Cranston, R. I.	29,407	42,911	47,085	55,060	16.9	210	28.7
Dallas, Tex.	158,976	260,474	294,734	434,462	47.4	22	112.0
Davenport, Iowa	56,727	60,751	66,039	74,549	12.9	152	18.1
Dayton, Ohio	152,559	200,982	210,718	243,872	15.7	44	25.0
Dearborn, Mich.	2,470	50,358	63,584	94,994	49.4	117	25.3
Decatur, Ill.	43,818	57,510	59,305	66,269	11.7	177	9.3
Denver, Colo.	256,491	287,861	322,412	415,786	29.0	24	66.8
Des Moines, Iowa	126,468	142,559	159,819	177,965	11.4	53	54.9
Detroit, Mich.	993,678	1,568,662	1,623,452	1,849,568	13.9	5	139.6
Duluth, Minn.	98,917	101,463	101,065	104,511	3.4	102	62.3
Durham, N. C.	21,719	52,037	60,195	71,311	18.5	166	13.2
East Chicago, Ind.	35,967	54,784	54,637	54,263	-0.7	213	10.4

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area, sq. mi.*
East Orange, N. J.	50,710	68,020	68,945	79,340	15.1	143	3.9
East St. Louis, Ill.	66,767	74,347	75,609	82,295	8.8	135	13.4
El Paso, Tex.	77,560	102,421	96,810	130,485	34.8	75	25.6
Elizabeth, N. J.	95,783	114,589	109,912	112,817	2.6	91	11.7
Erie, Pa.	93,372	115,967	116,955	130,803	11.8	74	18.8
Evanston, Ill.	37,234	63,338	65,389	73,641	12.6	158	8.2
Evansville, Ind.	85,264	102,249	97,062	128,636	32.5	78	18.0
Fall River, Mass.	120,485	115,274	115,428	111,963	-3.0	92	33.9
Flint, Mich.	91,599	156,492	151,543	163,143	7.7	60	29.3
Fort Wayne, Ind.	86,549	114,946	118,410	133,607	12.8	71	18.8
Fort Worth, Tex.	106,482	163,447	177,662	278,778	56.9	38	93.7
Fresno, Calif.	45,086	52,513	60,685	91,669	51.1	124	15.0
Gadsden, Ala.	14,737	24,042	36,975	55,725	50.7	207	27.2
Galveston, Tex.	44,255	52,938	60,862	66,568	9.4	175	8.1
Gary, Ind.	55,378	100,426	111,719	133,911	19.9	70	41.6
Glendale, Calif.	13,536	62,736	82,582	95,702	15.9	115	20.3
Grand Rapids, Mich.	137,634	168,592	164,292	176,515	7.4	55	23.4
Green Bay, Wis.	31,017	37,415	46,235	52,735	14.1	216	13.9
Greensboro, N. C.	19,861	53,569	59,319	74,389	25.4	153	18.2
Greenville, S. C.	23,127	29,154	34,734	58,161	67.4	201	16.2
Hamilton, Ohio	39,675	52,176	50,592	57,951	15.2	202	7.6
Hammond, Ind.	36,004	64,560	70,184	87,594	24.8	128	23.5
Harrisburg, Pa.	75,917	80,339	83,893	89,544	6.7	126	6.3
Hartford, Conn.	138,036	164,072	166,267	177,397	6.7	54	17.4
Hoboken, N. J.	68,166	59,261	50,115	50,676	1.1	229	1.0
Holyoke, Mass.	60,203	56,537	53,750	54,661	1.7	211	21.0
Honolulu, Hawaii	83,327	137,582	179,326	248,034	38.3	...	82.2
Houston, Tex.	138,276	292,352	384,514	596,163	55.0	14	160.0
Huntington, W. Va.	50,177	75,572	78,836	86,353	9.5	130	14.0
Indianapolis, Ind.	314,194	364,161	386,972	427,173	10.4	23	55.2
Irrvington, N. J.	25,480	56,733	55,328	59,201	7.0	197	3.1
Jackson, Mich.	48,374	55,187	49,656	51,088	2.9	228	10.2
Jackson, Miss.	22,817	48,282	62,107	98,271	58.2	110	27.0
Jacksonville, Fla.	91,558	129,549	173,065	204,517	18.2	49	30.2
Jersey City, N. J.	298,103	316,715	301,173	299,017	-0.7	37	13.0
Johnstown, Pa.	67,327	66,993	66,668	63,232	-5.2	189	5.6
Joliet, Ill.	38,442	42,993	42,365	51,601	21.8	222	7.7
Kalamazoo, Mich.	48,487	54,786	54,097	57,704	6.7	203	8.8
Kansas City, Kans.	101,177	121,857	121,458	129,553	6.7	76	18.7
Kansas City, Mo.	324,410	399,746	399,178	456,622	14.4	20	80.6
Kenosha, Wis.	40,472	50,262	48,765	54,368	11.5	212	7.6
Knoxville, Tenn.	77,818	105,802	111,580	124,769	11.8	83	25.4
Lakewood, Ohio	41,732	70,509	69,160	68,071	-1.6	171	5.6
Lancaster, Pa.	53,150	59,949	61,345	63,774	4.0	186	4.3
Lansing, Mich.	57,327	78,397	78,753	92,129	17.0	121	14.1
Laredo, Tex.	22,710	32,618	39,274	51,910	32.2	221	13.5
Lawrence, Mass.	94,270	85,068	84,323	80,536	-4.5	140	6.7
Lexington, Ky.	41,534	45,736	49,304	55,534	12.6	209	5.7
Lima, Ohio	41,326	42,287	44,711	50,246	12.4	231	7.7
Lincoln, Nebr.	54,948	75,933	81,984	98,884	20.6	109	23.8
Little Rock, Ark.	65,142	81,679	88,039	102,213	16.1	105	21.0
Long Beach, Calif.	55,593	142,032	164,271	250,767	52.7	41	34.7
Lorain, Ohio	37,295	44,512	44,125	51,202	16.0	226	11.0
Los Angeles, Calif.	576,673	1,238,048	1,504,277	1,970,358	31.0	4	450.9
Louisville, Ky.	234,891	307,745	319,077	369,129	15.7	30	39.9
Lowell, Mass.	112,759	100,234	101,389	97,249	-4.1	111	12.9
Lubbock, Tex.	4,051	20,520	31,853	71,747	125.2	163	17.0
Lynn, Mass.	99,148	102,320	98,123	99,738	1.6	107	10.4
McKeesport, Pa.	46,781	54,632	55,355	51,502	-7.0	223	3.5
Macon, Ga.	52,995	53,829	57,865	70,252	21.4	169	12.0
Madison, Wis.	38,378	57,899	67,447	96,056	42.4	114	15.4
Malden, Mass.	49,103	58,036	58,010	59,804	3.1	195	4.8
Manchester, N. H.	78,384	76,834	77,685	82,732	6.5	134	32.1
Medford, Mass.	39,038	59,714	63,083	66,113	4.8	178	8.1
Memphis, Tenn.	162,351	253,143	292,942	396,000	35.2	26	104.2
Miami, Fla.	29,571	110,637	172,172	249,276	44.8	42	34.2
Milwaukee, Wis.	457,147	578,249	587,472	637,392	8.5	13	50.0
Minneapolis, Minn.	380,582	464,356	492,370	521,718	6.0	17	53.8
Mobile, Ala.	60,777	68,202	78,720	129,009	63.9	77	25.4
Montgomery, Ala.	43,464	66,079	78,084	106,525	36.4	100	26.1

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area, sq. mi.*
Mount Vernon, N. Y.	42,726	61,499	67,362	71,899	6.7	162	4.1
Muncie, Ind.	36,524	46,548	49,720	58,479	17.6	200	10.0
Nashville, Tenn.	118,342	153,866	167,402	174,307	4.1	56	22.0
New Bedford, Mass.	121,217	112,597	110,341	109,189	-1.0	96	19.1
New Britain, Conn.	59,316	68,128	68,685	73,726	7.3	156	13.7
New Haven, Conn.	162,537	162,655	160,605	164,443	2.4	59	17.9
New Orleans, La.	387,219	458,762	494,537	570,445	15.3	16	199.4
New Rochelle, N. Y.	36,213	54,000	58,408	59,725	2.3	196	9.9
New York, N. Y.	5,620,048	6,930,446	7,454,995	7,891,957	5.9	1	315.1
Bronx borough	732,016	1,265,258	1,394,711	1,451,277	4.1	...	43.4
Brooklyn borough	2,018,356	2,560,401	2,698,285	2,738,175	1.5	...	76.1
Manhattan borough	2,284,103	1,867,312	1,889,924	1,960,101	3.7	...	22.3
Queens borough	469,042	1,079,129	1,297,634	1,550,849	19.5	...	113.0
Richmond borough	116,531	158,346	174,441	191,555	9.8	...	60.3
Newark, N. J.	414,524	442,337	429,760	438,776	2.1	21	23.6
Newton, Mass.	46,054	65,276	69,873	81,994	17.3	136	17.3
Niagara Falls, N. Y.	50,760	75,460	78,029	90,872	16.5	125	12.7
Norfolk, Va.	115,777	129,710	144,332	213,513	47.9	48	28.2
Oak Park, Ill.	39,858	63,982	66,015	63,529	-3.8	188	4.7
Oakland, Calif.	216,261	284,063	302,163	384,575	27.3	27	53.0
Ogden, Utah	32,804	40,272	43,688	57,112	30.7	206	16.6
Oklahoma City, Okla.	91,295	185,389	204,424	243,504	19.1	45	50.8
Omaha, Nebr.	191,601	214,006	223,844	251,117	12.2	40	40.7
Orlando, Fla.	9,282	27,330	36,736	52,367	42.5	219	14.1
Pasadena, Calif.	45,354	76,086	81,864	104,577	27.7	101	21.3
Passaic, N. J.	63,841	62,959	61,394	57,702	-6.0	204	3.1
Patterson, N. J.	135,875	138,513	139,656	139,336	-0.2	66	8.1
Pawtucket, R. I.	64,248	77,149	75,797	81,436	7.4	138	8.6
Peoria, Ill.	76,121	104,969	105,087	111,856	6.4	93	12.9
Philadelphia, Pa.	1,823,779	1,950,961	1,931,334	2,071,605	7.3	3	127.2
Phoenix, Ariz.	29,053	48,118	65,414	106,818	63.3	98	17.1
Pittsburgh, Pa.	588,343	669,817	671,659	676,806	0.8	12	54.2
Pittsfield, Mass.	41,763	49,677	49,684	53,348	7.4	214	40.9
Pontiac, Mich.	34,273	64,928	66,626	73,681	10.6	157	19.8
Port Arthur, Tex.	22,251	50,902	46,140	57,530	24.7	205	12.2
Portland, Maine	69,272	70,810	73,643	77,634	5.4	148	21.6
Portland, Oreg.	258,288	301,815	305,394	373,628	22.3	29	64.1
Portsmouth, Va.	54,387	45,704	50,745	80,039	57.7	141	10.2
Providence, R. I.	237,595	252,981	253,504	248,674	-2.1	43	17.9
Pueblo, Colo.	43,050	50,096	52,162	63,685	22.9	187	10.6
Quincy, Mass.	47,876	71,983	75,810	83,835	10.6	133	16.8
Racine, Wis.	58,593	67,542	67,195	71,193	5.9	167	9.2
Raleigh, N. C.	24,418	37,379	46,897	65,679	40.0	180	11.0
Reading, Pa.	107,784	111,171	110,568	109,320	-1.1	95	8.8
Richmond, Calif.	16,843	20,093	23,642	99,545	321.1	108	14.5
Richmond, Va.	171,667	182,929	193,042	230,310	19.3	46	37.1
Roanoke, Va.	50,842	69,206	69,287	91,921	32.7	122	26.5
Rochester, N. Y.	295,750	328,132	324,975	332,488	2.3	32	36.0
Rockford, Ill.	65,651	85,864	84,637	92,927	9.8	119	14.0
Sacramento, Calif.	65,908	93,750	105,958	137,572	29.8	67	16.9
Saginaw, Mich.	61,903	80,715	82,794	92,918	12.2	120	16.6
St. Joseph, Mo.	77,939	80,935	75,711	78,588	3.8	145	14.1
St. Louis, Mo.	772,897	821,960	816,048	856,796	5.0	8	61.0
St. Paul, Minn.	234,698	271,606	287,736	311,349	8.2	35	52.2
St. Petersburg, Fla.	14,237	40,425	60,812	96,738	59.1	113	52.2
Salt Lake City, Utah	118,110	140,267	149,934	182,121	21.5	52	53.9
San Angelo, Tex.	10,050	25,308	25,802	52,093	101.9	220	28.8
San Antonio, Tex.	161,379	231,542	253,854	408,442	60.9	25	69.5
San Bernardino, Calif.	18,721	37,481	43,646	63,058	44.5	190	19.5
San Diego, Calif.	74,361	147,995	203,341	334,387	64.4	31	99.4
San Francisco, Calif.	506,676	634,394	634,536	775,357	22.2	11	44.6
San Jose, Calif.	39,642	57,651	68,457	95,280	39.2	116	17.0
Santa Monica, Calif.	15,252	37,146	53,500	71,595	33.8	164	8.0
Savannah, Ga.	83,252	85,024	95,996	119,638	24.6	87	14.6
Schenectady, N. Y.	88,723	95,692	87,549	91,785	4.8	123	10.2
Scranton, Pa.	137,783	143,433	140,404	125,536	-10.6	82	24.9
Seattle, Wash.	315,312	365,583	368,302	467,591	27.0	19	70.8
Shreveport, La.	43,874	76,655	98,167	127,206	29.6	80	24.0
Sioux City, Iowa	71,227	79,183	82,364	83,991	2.0	132	45.0
Sioux Falls, S. Dak.	25,202	33,362	40,832	52,696	29.1	217	12.7

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area, sq. mi.*
Somerville, Mass.....	93,091	103,908	102,177	102,351	0.2	104	4.1
South Bend, Ind.....	70,983	104,193	101,268	115,911	14.5	89	20.2
South Gate, Calif.....		19,632	26,945	51,116	89.7	227	7.0
Spokane, Wash.....	104,437	115,514	122,001	161,721	32.6	62	41.5
Springfield, Ill.....	59,183	71,864	75,503	81,628	8.1	137	10.4
Springfield, Mass.....	129,614	149,900	149,554	162,399	8.6	61	31.7
Springfield, Mo.....	39,631	57,527	61,238	66,731	9.0	174	13.6
Springfield, Ohio.....	60,840	68,743	70,662	78,508	11.1	147	12.1
Stamford, Conn.....	35,096	46,346	47,938	74,293	55.0	154	37.6
Stockton, Calif.....	40,296	47,963	54,714	70,853	29.5	168	11.8
Syracuse, N. Y.....	171,717	209,326	205,967	220,583	7.1	47	25.3
Tacoma, Wash.....	96,965	106,817	109,408	143,673	31.3	65	47.9
Tampa, Fla.....	51,608	101,161	108,391	124,681	15.0	84	19.0
Terre Haute, Ind.....	66,083	62,810	62,693	64,214	2.4	185	12.2
Toledo, Ohio.....	243,164	290,718	282,349	303,616	7.5	36	38.3
Topeka, Kans.....	50,022	64,120	67,833	78,791	16.2	144	12.5
Trenton, N. J.....	119,289	123,356	124,697	128,009	2.7	79	7.2
Troy, N. Y.....	71,996	72,763	70,304	72,311	2.9	160	9.3
Tulsa, Okla.....	72,075	141,258	142,157	182,740	28.5	51	26.7
Union City, N. J.....	20,651	58,659	56,173	55,537	-1.1	208	1.3
Utica, N. Y.....	94,156	101,740	100,518	101,531	1.0	106	15.8
Waco, Tex.....	38,500	52,848	55,982	84,706	51.3	131	26.0
Washington, D. C.....	437,571	486,869	663,091	802,178	21.0	9	61.4
Waterbury, Conn.....	91,715	99,902	99,314	104,477	5.2	103	27.6
Waterloo, Iowa.....	36,230	46,191	51,743	65,198	26.0	181	31.3
Wheeling, W. Va.....	56,208	61,659	61,099	58,891	-3.6	199	10.4
Wichita, Kans.....	72,217	111,110	114,966	168,279	46.4	58	25.7
Wichita Falls, Tex.....	40,079	43,690	45,112	68,042	50.8	172	14.1
Wilkes-Barre, Pa.....	73,833	86,626	86,236	76,826	-10.9	151	6.9
Wilmington, Del.....	110,168	106,597	112,504	110,356	-1.9	94	9.8
Winston-Salem, N. C.....	48,395	75,274	79,815	87,811	10.0	127	18.8
Woonsocket, R. I.....	49,496	49,376	49,303	50,211	1.8	232	8.6
Worcester, Mass.....	179,754	195,311	193,694	203,486	5.1	50	37.0
Yonkers, N. Y.....	100,176	134,646	142,598	152,798	7.2	64	17.2
York, Pa.....	47,512	55,254	56,712	59,953	5.7	194	4.2
Youngstown, Ohio.....	132,358	170,002	167,720	168,330	0.4	57	32.8

* Land area as of April 1, 1950. NOTE: Increase in population from census to census includes that due to annexation of territory as well as to direct growth.

Territorial Expansion of the United States, 1790-1950

Source: U. S. Bureau of the Census.

Accession	Date	Area, sq. mi. ¹
CONTINENTAL UNITED STATES		
Territory in 1790		888,811
Louisiana Purchase	1803	827,192
Florida	1819	58,560
By treaty with Spain	1819	13,443
Texas	1845	390,144
Oregon	1846	285,580
Mexican Cession	1848	529,017
Gadsden Purchase	1853	29,640
Total		3,022,387

OUTLYING TERRITORY

Accession	Date	Area, sq. mi. ¹
Alaska Territory ^a	1867	586,400
Hawaii Territory ^a	1898	6,423
Puerto Rico	1899	3,435
Guam	1899	206
American Samoa	1900	76
Panama Canal Zone	1904	553
Corn Islands ^a	1914	4

Accession	Date	Area sq. mi. ¹
Virgin Islands of U. S. ..	1917	133
Trust territory	1947	8,476
All other		38
Total		605,743
Aggregate, 1950		3,628,130

¹ Total land and water area. ² Leased from Nicaragua for 99 years. ³ Became state in 1959.

Population of Possessions

Source: U. S. Bureau of the Census.

Area	1930	1940	1950
United States.....	122,775,046	131,669,275	150,697,361
Alaska ¹	59,278	72,524	128,643
American Samoa	10,055	12,908	18,937
Canal Zone	39,467	51,827	52,822
Guam	18,509	22,290	59,498
Hawaii ¹	368,336	423,330	499,794
Philippines	13,513,000	16,356,000	
Puerto Rico	1,543,913	1,869,255	2,210,703
Virgin Is. of U. S.	22,012	24,889	26,665
Total	138,349,616	150,502,298	153,694,423

¹ Became state in 1959.

The Working Population of the U. S., 1820-1950

Source: U. S. Bureau of the Census.

Year	Working population		Per cent of working population in		Year	Working population		Per cent of working population in	
	Number (thousands)	Per cent of total population ages 10 and over*	Farm occupation	Nonfarm occupation		Number (thousands)	Per cent of total population ages 10 and over*	Farm occupation	Nonfarm occupation
1820.....	2,881	44.4	71.8	28.2	1890.....	23,318	49.2	42.6	57.4
1830.....	3,932	45.5	70.5	29.5	1900.....	29,073	50.2	37.5	62.5
1840.....	5,420	46.6	68.6	31.4	1910.....	37,371	52.2	31.0	69.0
1850.....	7,697	46.8	63.7	36.3	1920.....	42,434	51.3	27.0	73.0
1860.....	10,533	47.0	58.9	41.1	1930.....	48,830	49.5	21.4	78.6
1870.....	12,925	44.4	53.0	47.0	1940.....	52,789	52.2	16.1	83.9
1880.....	17,392	47.3	49.4	50.6	1950.....	60,054	53.5	11.6	88.4

* For 1820 to 1930, the data relate to the population and gainful workers at ages 10 and over. For 1940 and 1950, the data relate to the population and labor force at ages 14 and over; the farm and nonfarm percentages relate only to the experienced labor force.

Experienced Civilian Labor Force, 1950 in Thousands

Source: U. S. Department of Commerce.

Total, 14 years & over.....	58,999	Farmers & farm managers.....	4,321
Professional, technical & kindred workers.....	4,988	Managers, officials & proprietors, excl. farm.....	5,076
Accountants & auditors.....	383	Clerical & kindred workers.....	7,070
Actors & actresses.....	18	Bookkeepers.....	736
Airplane pilots & navigators.....	14	Cashiers.....	234
Architects.....	25	Stenographers, typists & secretaries.....	1,622
Artists & art teachers.....	81	Sales workers.....	4,044
Authors, editors & reporters.....	108	Insurance agents & brokers.....	307
Chemists.....	76	Sales & sales clerks.....	3,407
Chiropractors.....	13	Craftsmen, foremen & kindred workers.....	8,153
Clergymen.....	168	Carpenters.....	985
College presidents, professors, instructors.....	126	Electricians.....	324
Dancers & dancing teachers.....	17	Foremen, not elsewhere classified.....	854
Dentists.....	75	Machinists.....	534
Draftsmen.....	125	Mechanics & repairmen.....	1,768
Engineers, technical.....	534	Painters, construction & maintenance.....	431
Lawyers & judges.....	181	Operators & kindred workers.....	11,715
Librarians.....	56	Private household workers.....	1,488
Musicians & music teachers.....	161	Service workers, except private household.....	4,512
Nurses, professional.....	404	Barbers, beauticians & machinists.....	389
Optometrists.....	15	Bartenders.....	208
Osteopaths.....	5	Boarding & lodging house keepers.....	29
Pharmacists.....	89	Charwomen & cleaners.....	124
Photographers.....	55	Cooks, except private household.....	463
Physicians & surgeons.....	192	Elevator operators.....	94
Radio operators.....	16	Practical nurses.....	144
Religious workers.....	42	Waiters & waitresses.....	713
Social & welfare workers, except group.....	76	Farm laborers & foremen.....	2,515
Surveyors.....	28	Laborers, except farm & mine.....	3,751
Veterinarians.....	13	Occupation not reported.....	1,366

Indian Population Residing on Reservations Under Agency Control

(Top 16 agencies by population, 1950)

Source: Bureau of Indian Affairs.

Five Civilized Tribes Agency (Okla.).....	37,382	Pima Agency (Ariz.).....	5,918
Navajo Agency & Reservation (Ariz.).....	32,838	Rosebud Agency (S. Dak.).....	5,698
Navajo Agency & Reservation (N. Mex.).....	20,714	Turtle Mountain Agency (N. Dak.).....	4,546
Southern Plains Agency (Okla.).....	14,841	Papago Agency (Ariz.).....	4,468
United Pueblo Agency (N. Mex.).....	12,935	Hope Agency & Reservation (Ariz.).....	4,011
California Agency (Calif.).....	10,000	Great Lakes Agency (Wis.).....	3,916
Pine Ridge Agency & Reservation (S. Dak.).....	6,636	Blackfeet Agency & Reservation (Mont.).....	3,546
Consolidated Chippewa Agency (Minn.).....	6,376	San Carlos Agency & Reservation (Ariz.).....	3,136

Women in the Working Population of the U. S., 1870-1950

Source: U. S. Bureau of the Census.

Year	Working women*		
	Number (thousands)	Per cent of female population ages 10 and over*	Per cent of total working population ages 10 and over*
1870.....	1,917	13.3	14.8
1880.....	2,647	14.7	15.2
1890.....	4,006	17.4	17.2
1900.....	5,319	18.8	18.3
1910.....	7,445	21.5	19.9
1920.....	8,637	21.4	20.4
1930.....	10,752	22.0	22.0
1940.....	12,845	25.4	24.3
1950.....	16,501	28.9	27.5

* For 1870 to 1930, the data relate to the population and gainful workers at ages 10 and over; for 1940 and 1950, the data relate to the population and labor force at ages 14 and over.

Percent Unemployed in the Civilian Labor Force, 1929-58

Source: U. S. Bureau of the Census.

Year	Per cent unemployed	Year	Per cent unemployed
1929.....	3.2	1944.....	1.2
1930.....	8.7	1945.....	1.9
1931.....	15.9	1946.....	3.9
1932.....	23.6	1947.....	3.6
1933.....	24.9	1948.....	3.4
1934.....	21.7	1949.....	5.5
1935.....	20.1	1950.....	5.0
1936.....	16.9	1951.....	3.0
1937.....	14.3	1952.....	2.7
1938.....	19.0	1953.....	2.5
1939.....	17.2	1954.....	5.0
1940.....	14.6	1955.....	4.0
1941.....	9.9	1956.....	3.8
1942.....	4.7	1957.....	4.3
1943.....	1.9	1958.....	6.8

NOTE: These estimates are derived from sample surveys and are subject to sampling variations.

MARRIAGE AND DIVORCE

Marriages and Divorces in the United States, 1890-1958

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year	Marriage		Divorce ²		Year	Marriage		Divorce ²	
	Number	Rate ¹	Number	Rate ¹		Number	Rate ¹	Number	Rate ¹
1890.....	570,000	9.0	33,461	.5	1931.....	1,060,914	8.6	188,003	1.5
1895.....	620,000	8.9	40,387	.6	1932.....	981,903	7.9	164,241	1.3
1900.....	709,000	9.3	55,751	.7	1933.....	1,098,000	8.7	165,000	1.3
1905.....	842,000	10.0	67,976	.8	1934.....	1,302,000	10.3	204,000	1.6
1906.....	895,000	10.5	72,062	.8	1935.....	1,327,000	10.4	218,000	1.7
1907.....	936,936	10.8	76,571	.9	1936.....	1,369,000	10.7	236,000	1.8
1908.....	857,461	9.7	76,852	.9	1937.....	1,451,296	11.3	249,000	1.9
1909.....	897,354	9.9	79,671	.9	1938.....	1,330,780	10.3	244,000	1.9
1910.....	948,166	10.3	83,045	.9	1939.....	1,403,633	10.7	251,000	1.9
1911.....	955,287	10.2	89,219	1.0	1940.....	1,595,879	12.1	264,000	2.0
1912.....	1,004,602	10.5	94,318	1.0	1941.....	1,695,999	12.7	293,000	2.2
1913.....	1,021,398	10.5	91,307	.9	1942.....	1,772,132	13.2	321,000	2.4
1914.....	1,025,092	10.3	100,584	1.0	1943.....	1,577,050	11.7	359,000	2.6
1915.....	1,007,595	10.0	104,298	1.0	1944.....	1,452,394	10.9	400,000	2.9
1916.....	1,075,775	10.6	114,000	1.1	1945.....	1,612,992	12.2	485,000	3.5
1917.....	1,144,200	11.1	121,564	1.2	1946.....	2,291,045	16.4	610,000	4.3
1918.....	1,000,109	9.7	116,254	1.1	1947.....	1,991,878	13.9	483,000	3.4
1919.....	1,150,186	11.0	141,527	1.3	1948.....	1,811,155	12.4	408,000	2.8
1920.....	1,274,476	12.0	170,505	1.6	1949.....	1,579,798	10.6	397,000	2.7
1921.....	1,163,863	10.7	159,580	1.5	1950.....	1,667,231	11.1	385,144	2.6
1922.....	1,134,151	10.3	148,815	1.4	1951.....	1,594,694	10.4	381,000	2.5
1923.....	1,229,784	11.0	165,096	1.5	1952.....	1,539,318	9.9	392,000	2.5
1924.....	1,184,574	10.4	170,952	1.5	1953.....	1,546,000	9.8	390,000	2.5
1925.....	1,188,334	10.3	175,449	1.5	1954.....	1,490,000	9.2	379,000	2.4
1926.....	1,202,574	10.2	184,678	1.6	1955.....	1,531,000	9.3	377,000	2.3
1927.....	1,201,053	10.1	196,292	1.6	1956.....	1,585,000	9.5	382,000	2.3
1928.....	1,182,497	9.8	200,176	1.7	1957.....	1,518,000	8.9	381,000	2.2
1929.....	1,232,559	10.1	205,876	1.7	1958 ³	1,445,000	8.3	.....	...
1930.....	1,126,856	9.2	195,961	1.6					

¹ Per 1,000 population. Divorce rates for 1917-19 and 1941-46 are based on population including armed forces overseas; for 1940 and 1947-58, on population excluding armed forces overseas. Marriage rates for 1917-19 and 1940-57 are based on population excluding armed forces overseas. ² Includes annulments. ³ Provisional. NOTE: Figures for marriages for all years include partial or complete estimates for some states; figures for divorces are estimated, except for 1900, 1905 and 1922-32. Leaders (....) indicate data not available.

Marital Status of the Population, 1950

Source: U. S. Bureau of the Census.

State and Census division	Males				Females			
	Population 14 yrs. old & over	% distribution*			Population 14 yrs. old & over	% distribution*		
		Single	Married	Widowed or divorced		Single	Married	Widowed or divorced
Alabama.....	1,024,915	26.03	69.10	4.87	1,093,798	19.51	66.21	14.28
Arizona.....	263,546	25.84	67.38	6.78	259,511	18.36	68.05	13.59
Arkansas.....	659,656	24.09	69.76	6.15	675,397	16.84	68.74	14.45
California.....	4,034,180	24.37	68.25	7.38	4,073,341	15.88	67.00	17.12
Colorado.....	489,263	25.76	67.60	6.64	490,550	18.23	67.03	14.74
Connecticut.....	756,080	27.34	66.89	5.77	797,537	23.28	63.74	12.98
Delaware.....	117,542	25.45	68.52	6.03	122,763	20.46	65.96	13.58
D. C.....	301,111	29.58	64.01	6.41	347,872	26.99	56.71	17.30
Florida.....	1,018,121	22.69	70.53	6.78	1,065,169	15.37	67.86	16.77
Georgia.....	1,168,086	26.29	68.86	4.85	1,247,615	18.84	66.03	15.13
Idaho.....	213,170	25.26	68.33	6.41	198,781	16.10	72.69	11.21
Illinois.....	3,309,125	25.56	67.73	6.71	3,418,775	19.74	65.57	14.69
Indiana.....	1,448,831	23.12	70.03	6.85	1,486,515	17.53	68.10	14.37
Iowa.....	968,920	25.55	68.17	6.28	985,169	19.54	66.95	13.51
Kansas.....	712,198	24.44	69.26	6.30	720,732	17.72	68.10	14.18
Kentucky.....	1,039,654	27.16	66.95	5.89	1,048,459	19.96	66.32	13.72
Louisiana.....	914,015	25.86	68.93	5.21	968,553	19.14	66.43	14.43
Maine.....	331,780	27.03	65.50	7.47	342,686	21.67	63.57	14.76
Maryland.....	863,852	26.31	68.01	5.68	884,036	20.09	66.40	13.51
Massachusetts.....	1,733,192	29.58	64.04	6.38	1,905,814	27.01	58.64	14.35
Michigan.....	2,368,024	25.13	68.41	6.46	2,349,955	18.74	68.55	12.71
Minnesota.....	1,101,812	29.56	64.79	5.65	1,099,128	22.73	64.85	12.42
Mississippi.....	723,522	26.45	68.55	5.00	757,568	18.71	67.27	14.02
Missouri.....	1,466,440	23.74	69.24	7.02	1,556,891	18.64	65.64	15.72
Montana.....	227,271	28.98	63.45	7.57	202,470	17.13	69.98	12.89
Nebraska.....	498,732	26.94	67.02	6.04	497,059	19.87	67.05	13.08
Nevada.....	64,807	25.18	65.45	9.37	55,791	12.94	72.64	14.42
New Hampshire.....	197,099	26.90	65.67	7.43	207,945	22.53	62.57	14.90
New Jersey.....	1,838,965	26.34	68.08	5.58	1,931,114	21.35	65.19	13.46
New Mexico.....	233,244	28.32	66.09	5.59	223,050	20.16	68.56	11.28
New York.....	5,616,963	27.59	66.79	5.62	6,033,574	23.15	62.89	13.96
North Carolina.....	1,390,072	29.44	66.62	3.94	1,435,312	22.54	65.39	12.07
North Dakota.....	230,502	34.70	60.51	4.79	207,649	22.10	66.68	10.22
Ohio.....	2,935,808	23.52	69.45	7.03	3,060,868	19.07	66.48	14.45
Oklahoma.....	808,460	23.87	69.51	6.62	822,794	16.13	68.34	15.53
Oregon.....	576,808	22.86	69.60	7.54	561,087	15.14	70.82	14.04
Pennsylvania.....	3,904,893	27.64	66.18	6.18	4,108,599	23.29	63.38	13.33
Rhode Island.....	300,768	30.12	63.87	6.01	319,531	25.40	60.99	13.61
South Carolina.....	688,217	29.53	66.67	3.80	733,249	22.57	64.13	13.30
South Dakota.....	245,727	31.27	63.33	5.40	227,366	20.86	67.86	11.27
Tennessee.....	1,149,299	25.45	69.04	5.51	1,209,638	19.31	66.11	14.58
Texas.....	2,781,613	24.78	69.34	5.88	2,801,565	16.79	68.60	14.61
Utah.....	235,325	25.81	69.31	4.88	234,486	19.12	69.31	11.57
Vermont.....	136,311	28.62	64.42	6.96	141,356	22.89	62.23	14.88
Virginia.....	1,210,799	29.79	65.22	4.99	1,193,627	21.18	65.46	13.36
Washington.....	919,661	25.93	66.57	7.50	862,214	15.44	70.03	14.53
West Virginia.....	700,823	27.29	67.08	5.63	704,919	20.98	66.56	12.46
Wisconsin.....	1,278,770	27.97	65.84	6.19	1,279,013	21.77	65.72	12.51
Wyoming.....	113,645	28.98	64.35	6.67	96,526	15.52	73.30	11.18
New England.....	3,455,230	28.70	64.89	6.41	3,709,869	25.17	60.75	14.08
Middle Atlantic.....	11,360,821	27.40	66.79	5.81	12,073,287	22.91	63.43	13.66
East North Central.....	11,340,558	24.90	68.40	6.70	11,595,126	19.30	66.76	13.94
West North Central.....	5,224,331	26.54	67.23	6.23	5,293,994	19.92	66.32	13.76
South Atlantic.....	7,458,623	27.46	67.42	5.12	7,734,562	20.45	65.57	13.98
East South Central.....	3,937,390	26.23	68.42	5.35	4,109,463	19.42	66.40	14.18
West South Central.....	5,163,744	24.73	69.36	5.91	5,268,309	17.12	68.18	14.70
Mountain.....	1,840,271	26.62	66.89	6.49	1,761,165	17.93	69.17	12.90
Pacific.....	5,530,649	24.47	68.11	7.42	5,496,642	15.73	67.87	16.40
TOTAL U. S.....	55,311,617	26.25	67.62	6.13	57,042,417	20.08	65.75	14.17

* Total for ages 14 and over = 100%.

Marriage Information, by State

Sources: Information Please Almanac questionnaires to states; and Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	Legal minimum marriage age				Blood test required	Waiting period ¹		Marriages ²	
	With parental consent ³		Without parental consent			Before license	After license	1957	1958 ⁴
	M	F	M	F					
Alabama.....	17	14	21	18	yes	none	none	19,868	24,444
Alaska.....	18	16	21	18	yes	3 da.	none	1,686	1,739
Arizona.....	18	16	21	18	yes	none	none	9,652	9,917
Arkansas.....	18	16	21	18	yes	3 da.	none	13,037 ¹²	15,574
California.....	18	16	21	18	yes	none	none	92,607	96,330
Colorado.....	16	16	21	18	yes	none	none	13,831 ¹⁴	14,688
Connecticut.....	16	16	21	21	yes	4 da.	none	18,156	16,879
Delaware.....	18	16	21	18	yes	none	24 hr. ⁵	2,243	2,311
D. C.....	18	16	21	18	no	3 da. ⁶	none	8,043 ¹⁴	8,094
Florida.....	18	16	21	21	yes	3 da.	none	32,149	35,243
Georgia.....	17	14	21	21	yes	5 da. ⁷	none	51,235	45,863
Hawaii.....	18	15	20	20	yes	3 da.	none	4,897	.....
Idaho.....	15	15	18	18	yes	none	none	8,995	9,520
Illinois.....	18	16	21	18	yes	none	none	82,887 ^{12, 14}	82,860
Indiana.....	18	16	21	18	yes	3 da.	none	74,891 ¹⁴	41,226
Iowa.....	16	14	21	18	yes	none	none	23,840	25,101
Kansas.....	18	16	21	18	yes	3 da.	none	15,982	15,481
Kentucky.....	16	14	21	21	yes	3 da.	none	21,314 ¹⁴	26,095
Louisiana.....	18	16	21	21	yes	none	72 hr.	21,201	21,447
Maine.....	16	16	21	18	yes	5 da.	none	7,878	7,104
Maryland.....	18	16	21	18	no	48 hr.	none	42,799	41,403
Massachusetts.....	18	16	21	18	yes	3 da.	none	35,790 ¹⁵	45,959
Michigan.....	18	16 ⁸	18	18	yes	3 da.	none	55,121	53,662
Minnesota.....	16	15	18	16	no	5 da.	none	23,862	23,410
Mississippi.....	17	15	21	18	yes	3 da.	none	62,495	36,198
Missouri.....	15	15	21	18	yes	3 da.	none	31,395 ¹³	33,976
Montana.....	18	16	21	18	yes	none	none	6,495	6,160
Nebraska.....	18	16	21	21	yes	none	none	10,702	10,637
Nevada.....	18	16	21	18	no	none	none	58,042 ¹⁴	55,755
New Hampshire.....	14	13	20	18	yes	5 da.	none	7,189	7,078
New Jersey.....	18	16	21	18	yes	72 hr.	none	40,367	39,113
New Mexico.....	18	16	21	18	yes	none	none	11,439 ¹³	5,850
New York.....	16	14 ⁹	21	18	yes	none	(¹⁰)	124,647	124,573
North Carolina.....	16	16	18	18	yes	none ¹¹	none	25,882 ¹⁴	27,228
North Dakota.....	18	15	21	18	yes	none	none	4,198	4,306
Ohio.....	18	16	21	21	yes	5 da.	none	59,256	65,479
Oklahoma.....	18	15	21	18	yes	none	none	30,592 ¹⁵	33,444
Oregon.....	18	15	21	18	yes	3 da.	none	9,961	9,798
Pennsylvania.....	16	16	21	21	yes	3 da.	none	75,208	64,529
Rhode Island.....	18	16	21	21	yes	none ¹²	none	5,884	5,653
South Carolina.....	18	14	18	18	no	24 hr.	none	42,091	38,550
South Dakota.....	18	15	21	18	yes	none	none	5,726	5,662
Tennessee.....	16	16	21	21	yes	3 da.	none	23,250	27,947
Texas.....	16	14	21	18	yes	none	none	89,400	89,702
Utah.....	16	14	21	18	yes	none	none	6,672	6,741
Vermont.....	18	16	21	18	yes	none	5 da.	3,210	3,376
Virginia.....	18	16	21	21	yes	none	none	37,184	36,588
Washington.....	15	15	21	18	no	3 da.	none	28,441 ¹⁴	27,966
West Virginia.....	18	16	21	21	yes	3 da.	none	14,277 ¹³	14,213
Wisconsin.....	18	15	21	18	yes	5 da.	none	25,723	25,073
Wyoming.....	18	16	21	21	yes	none	none	2,909	2,945

¹ In some states, waiting period may be waived or reduced by court order. ² By place of occurrence. ³ In most states, persons younger than the age shown may be married by court permission. ⁴ Provisional figures; data represent marriages reported for 28 states, Alaska, and Hawaii; marriage intentions filed for 1 state; and marriage licenses issued for remaining states. ⁵ 96 hours if nonresidents. ⁶ Day of application and day of pickup not included in 3-day waiting period. ⁷ If parties cannot establish they are of legal marriage age. ⁸ Consent of one parent or guardian necessary for female only. ⁹ Females 14 to 16 years old must also have consent of judge of Children's Court. ¹⁰ Marriage may not be solemnized within 3 days from date on which specimen was taken for serological test, and not until 24 hours after issuance of marriage license. Waiting period may be waived by court order. ¹¹ Except in Pamlico County, 48 hours. ¹² 5-day waiting period if woman is nonresident. ¹³ Data incomplete. ¹⁴ Marriage licenses. ¹⁵ Data estimated.

Grounds for Divorce

Source: Information Please Almanac questionnaires to the states.

State	Adultery	Cruelty	Desertion	Alcoholism	Impotence	Felony conviction	Neglect to provide	Insanity	Pregnancy at marriage	Bigamy	Separation	Indignities	Drug addiction	Violence	Fraudulent contract	Others
Alabama.....	yes	yes	yes ²	yes	...	yes ²⁰	yes ⁸	yes ⁴	yes	...	...	...	yes	yes	...	(5)
Alaska.....	yes	yes	yes	yes	yes	yes	yes	yes	...	...	...	yes	yes	...	...	(49)
Arizona.....	yes	yes	yes	yes	yes	yes ⁸	yes	...	yes	yes	yes ⁴	yes	yes	yes	yes	(5,7-12)
Arkansas.....	yes	yes	yes ²	yes	yes	yes	yes	...	...	yes	yes ¹⁴	yes	yes	yes	yes	(12,15,16)
California.....	yes	yes ¹⁸	yes	yes ²³	yes	yes	yes ²³	yes ¹⁴	...	yes	...	yes	...	yes	yes	...
Colorado.....	yes	yes	yes ²	yes	yes	yes	yes	yes ⁴	...	yes	yes ²	...	yes	yes	...	(7)
Connecticut.....	yes	yes	yes ¹⁴	yes	...	yes ¹⁸	...	yes ⁴	...	...	...	...	...	...	yes	(10,17,19)
Delaware.....	yes	yes	yes ²	yes ²	...	yes ²⁰	yes	yes ⁴	...	yes	...	...	...	...	...	(21-22,26)
D. C.....	yes	yes ²⁷	yes ²	...	...	yes	...	...	...	...	yes ⁴	...	...	...	...	...
Florida.....	yes	yes	yes ²	...	yes	...	...	...	...	yes	...	...	...	...	...	(12,17,24,47)
Georgia.....	yes	yes	yes ²	yes	yes	yes ²⁰	...	yes	yes	...	...	...	...	...	yes	(12,18)
Hawaii.....	yes	yes	yes ²³	yes ²	...	yes ²³	yes ²⁰	yes ¹⁴	...	yes	...	yes ²	...	...	...	(21)
Idaho.....	yes	yes	yes	...	...	yes	yes	yes ¹⁴	...	yes	...	...	...	...	...	(17,21)
Illinois.....	yes	yes	yes ²	yes ²	yes	yes	...	...	...	yes	...	...	...	...	...	(10,26,27)
Indiana.....	yes	yes	yes ²	yes	yes	...	yes ²	yes ⁴	...	...	...	...	...	...	...	(10)
Iowa.....	yes	yes	yes ²	yes	...	yes	...	...	...	...	...	...	...	...	...	...
Kansas.....	yes	yes	yes ²	yes	yes	yes	...	yes ⁴	yes	yes	...	...	...	...	yes	(12,16)
Kentucky.....	yes	yes	yes	yes	yes	yes	...	yes ⁴	yes	...	yes ⁴	...	...	yes	yes	(11,22,23)
Louisiana.....	yes	yes	yes	yes	...	yes	yes	...	...	...	yes ²	...	...	...	...	(26,29)
Maine.....	yes	yes	yes	yes	yes	yes ¹⁸	yes	...	...	yes	...	yes	yes	...	...	(15)
Maryland.....	yes	yes	yes ¹¹	...	yes ¹⁶	yes ²²	...	yes ¹⁴	...	...	yes ¹⁴	...	...	...	...	(22)
Massachusetts.....	yes	yes	yes ¹⁶	yes	yes	yes ¹⁴	yes	...	...	...	...	...	yes	...	...	...
Michigan.....	yes	yes	yes ²	yes	yes	yes ¹⁵	yes	yes	...	yes	...	...	yes	yes	yes	...
Minnesota.....	yes	yes	yes ²	yes ²	yes	yes	...	yes ⁴	...	...	yes ²	...	...	...	...	...
Mississippi.....	yes	yes	yes	yes	yes	yes	...	yes ²⁶	yes	yes	...	...	yes	yes	...	(7,12,16)
Missouri.....	yes	yes	yes	yes	yes	yes	...	...	yes	yes	...	yes	...	...	...	(7-10)
Montana.....	yes	yes	yes	...	...	yes	yes	yes	...	...	...	...	...	...	...	(17)
Nebraska.....	yes	yes	yes	yes	yes	yes ²⁵	yes	yes ⁴	...	...	...	...	...	...	...	...
Nevada.....	yes	yes	yes ²	yes	yes	yes	yes	yes ²	...	yes	yes	...	...	...	...	(10,28)
New Hampshire.....	yes	yes	yes ¹⁴	yes ¹⁴	...	yes ²	yes ¹⁴	...	...	...	...	...	...	yes	...	(15,22,23)
New Jersey.....	yes	yes	yes ²	...	...	...	...	...	...	...	...	...	...	...	...	...
New Mexico.....	yes	yes	yes	yes	yes	yes	yes	yes ⁴	yes	...	...	...	...	...	...	(42)
New York.....	yes	...	yes	...	...	...	...	...	...	...	...	...	...	...	...	...
North Carolina.....	yes	...	...	...	yes	...	...	yes ²⁷	yes	...	yes ²	...	...	...	...	(5)
North Dakota.....	yes	yes	yes ²	yes ²	...	yes	yes ²	yes ⁴	...	...	...	...	yes ²	...	...	...
Ohio.....	yes	yes	...	yes ¹⁴	yes	yes	...	...	yes	...	...	...	...	...	yes	(15,24,29)
Oklahoma.....	yes	yes	yes ²	yes	yes	yes	yes	yes ⁴	yes	...	...	...	...	...	yes	(24,29,42)
Oregon.....	yes	yes	yes ²	yes ²³	yes	yes	...	yes ¹⁴	...	...	...	yes	...	...	...	...
Pennsylvania.....	yes	yes	yes ²	...	yes ¹⁵	yes ²⁰	...	...	yes	yes	...	yes	...	...	yes	(12)
Rhode Island.....	yes	yes	yes ⁴	yes	yes	yes ²²	yes ²	yes ¹⁶	...	yes	yes ²⁷	...	yes	yes	yes	(40, 62)
South Carolina.....	yes	yes	yes ²	yes	...	...	...	...	...	...	...	...	...	...	...	...
South Dakota.....	yes	yes ²	yes ²	yes ²	...	yes	yes ⁴	yes ²	...	...	...	...	...	...	...	(7)
Tennessee.....	yes	yes	yes ²	yes	yes	yes	yes	yes	yes	yes	...	...	...	...	...	(10,26,41,42)
Texas.....	yes ²⁴	yes	yes ¹⁴	...	...	yes ²⁵	...	yes ⁴	...	...	yes ²²	yes	...	yes	...	...
Utah.....	yes	yes	yes	yes	yes	yes	yes	yes	...	...	yes ¹⁴	...	...	...	...	...
Vermont.....	yes	yes	yes ¹⁴	...	...	yes ²⁵	yes	yes ⁴	...	...	yes ¹⁴	...	...	...	...	(19)
Virginia.....	yes	...	yes ²	...	yes	yes	...	...	yes	...	...	...	...	...	...	(5,12,42,43)
Washington.....	yes	yes	yes ²	yes	yes	yes	yes	yes ²	...	...	yes ⁴	yes	...	...	yes	...
West Virginia.....	yes	yes	yes ²	yes	...	yes	...	...	...	...	...	...	yes	...	...	...
Wisconsin.....	yes	yes	yes ²	yes	yes	yes ²⁶	...	...	...	...	yes ⁴	...	...	...	...	(44)
Wyoming.....	yes	yes	yes ²	yes	yes	yes	yes ²	yes ²	yes	...	yes ²	yes	...	...	...	(5,6,45)

¹ If unknown to husband. ² 1 year. ³ 2 years. ⁴ 5 years. ⁵ Crime against nature. ⁶ With imprisonment of 1 year. ⁷ Absence of 1 year. ⁸ Felony before marriage. ⁹ Husband a vagrant. ¹⁰ Infamous crime. ¹¹ Loathsome disease. ¹² Relationship within prohibited degree. ¹³ Wife a prostitute. ¹⁴ 3 years. ¹⁵ Absence of 3 years. ¹⁶ Insanity at time of marriage. ¹⁷ Habitual intemperance. ¹⁸ With imprisonment for life. ¹⁹ Absence of 7 years. ²⁰ With imprisonment of 2 years. ²¹ Wife under 16 at time of marriage. ²² Husband under 18 at time of marriage. ²³ Feeble-mindedness or epilepsy for 5 years. ²⁴ Defendant obtained divorce from plaintiff in any other state or country. ²⁵ Absence. ²⁶ Attempt by one party on life of other. ²⁷ Infected other party with communicable venereal disease. ²⁸ Joining a religious cult disbelieving in marriage. ²⁹ Unchaste behavior of wife after marriage. ³⁰ Public defamation. ³¹ 18 months. ³² With imprisonment of 3 years, 18 months of which have been served. ³³ Excessively vicious conduct, any cause which, by laws of state, renders marriage null and void at its inception. ³⁴ With imprisonment of 5 years. ³⁵ With imprisonment of 3 years. ³⁶ Nonhabitation for 3 years. ³⁷ 10 years. ³⁸ 1 year, if contracted after marriage. ³⁹ Gross neglect of duty. ⁴⁰ Any other gross misbehavior or wickedness. ⁴¹ Absence of 2 years. ⁴² Infamous crime before marriage. ⁴³ Fugitive from justice and absent for 2 years. ⁴⁴ Absence of 5 years. ⁴⁵ If at

(Footnotes continued on next page.)

Per Cent of Population Ever Married: U. S., 1890-1958

Source: U. S. Bureau of the Census.

Age group, years	1890	1900	1910	1920	1930	1940	1950	1958
Males: 14-19.....	0.4	0.9	1.0	1.8	1.5	1.5	2.6	2.5
20-24.....	19.2	22.1	24.6	29.0	28.9	27.8	43.9	47.9
25-29.....	53.8	54.0	56.9	60.3	63.1	64.0	81.5	77.2
30-34.....	73.3	72.2	73.7	75.7	78.7	79.3		86.9
35-44.....	84.5	82.9	83.1	83.7	85.6	86.0	89.3	90.3
45-54.....	90.7	89.6	88.7	87.8	88.5	88.9	89.4	92.9
Females: 14-19.....	8.0	9.4	9.7	10.8	10.9	10.0	15.2	13.5
20-24.....	48.1	48.3	51.4	54.3	53.8	52.8	68.4	71.0
25-29.....	74.5	72.4	74.9	76.8	78.2	77.2	89.2	88.7
30-34.....	84.8	83.3	83.8	85.0	86.7	85.3		92.9
35-44.....	90.1	88.8	88.5	88.6	89.9	89.6	91.6	93.7
45-54.....	92.9	92.1	91.4	90.3	90.8	91.3	92.2	92.3

Marriage Prospects of Single Men and Women

Source: U. S. Bureau of the Census.

Age	Per cent of population single ¹		Per cent who ever marry ²		Age	Per cent of population single ¹		Per cent who ever marry ²	
	Male	Female	Male	Female		Male	Female	Male	Female
15.....	99.1	98.0	92.2	93.5	33.....	11.9	8.3	58.5	42.1
16.....	99.2	94.0	92.4	93.5	34.....	11.0	8.1	54.1	38.0
17.....	98.4	86.4	92.5	93.5	35.....	10.9	9.3	49.7	34.3
18.....	96.1	75.6	92.6	93.3	36.....	10.3	8.1	45.6	31.0
19.....	90.7	62.4	92.7	92.9	37.....	9.7	7.8	41.6	27.9
20.....	82.2	50.0	92.6	92.1	38.....	9.9	8.3	38.1	25.2
21.....	70.2	38.7	92.3	90.8	39.....	8.9	7.5	34.8	22.6
22.....	58.6	30.1	91.8	89.0	40.....	9.9	9.3	31.7	20.2
23.....	47.1	23.9	90.0	86.3	41.....	8.5	7.5	28.8	18.1
24.....	38.4	19.8	89.6	82.8	42.....	8.8	8.1	26.0	16.1
25.....	32.2	16.5	88.0	78.5	43.....	8.2	7.5	23.5	14.4
26.....	27.6	15.0	85.9	73.7	44.....	8.7	7.7	21.2	12.8
27.....	22.7	12.7	83.4	68.9	45.....	9.5	8.9	19.1	11.3
28.....	19.4	11.6	80.3	64.4	50.....	9.6	8.8	11.1	6.1
29.....	16.6	10.4	76.6	59.9	55.....	8.9	8.0	6.2	3.2
30.....	15.9	10.8	72.3	55.3	60.....	9.2	8.6	3.3	1.6
31.....	13.3	9.2	67.5	50.8	65 and over.....	8.3	8.9	1.9	0.8
32.....	13.1	9.2	63.0	46.4					

¹ Per cent single within specified year of age in 1950, in 3¼ % sample of population. ² Per cent of persons single at beginning of year of age who marry during that year and all later years. NOTE: "Single" means those never married; that is, it excludes widowed and divorced. Hence, "marriage prospects" refers to likelihood of first marriage only.

Median Age at First Marriage in the U. S., 1890-1957

Source: U. S. Bureau of the Census.

Year	Males	Females	Year	Males	Females	Year	Males	Females	Year	Males	Females
1890.....	26.1	22.0	1910.....	25.1	21.6	1930.....	24.3	21.3	1950.....	23.9	21.6
1900.....	25.9	21.9	1920.....	24.6	21.2	1940.....	24.3	21.5	1957.....	*	20.3

* Not available; 22.9 for 1956.

Footnotes for Grounds for Divorce (contd.)

time of marriage and incurable. ⁴⁶ Indignities. ⁴⁷ Ungovernable temper. ⁴⁸ Noncohabitation for 2 years. ⁴⁹ Incompatibility. ⁵⁰ Imprisonment for 2 years, sentence being for 7 years or more. ⁵¹ Noncohabitation for 5 years. ⁵² 7 years. ⁵³ 1 year. ⁵⁴ Wife's adultery. Husband's adultery when combined with abandonment. ⁵⁵ Sult for divorce cannot be sustained until 12 months after final judgment of conviction. Divorce cannot be obtained if plaintiff's testimony contributed toward conviction. ⁵⁶ Absence of 3 years and/or insanity at time of marriage. ⁵⁷ Limited divorce; may be grounds for absolute divorce 2 years later. ⁵⁸ 6 months. ⁵⁹ Imprisonment for life or for 7 years or more. ⁶⁰ Not less than 60 days. ⁶¹ Either party has contracted Hansen's disease (leprosy). ⁶² Absence of one spouse; presumption of death.

Divorce Information, by State

Sources: Questionnaires to states; and Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	Residence for divorce	Period before parties may remarry		Divorces ¹	
		Plaintiff	Defendant	1956	1957 ²
Alabama.....	1 yr. ²³	60 da. ³	60 da. ³	10,925 ⁶	12,517
Alaska.....	2 yr.	none	none	552	547
Arizona.....	1 yr.	1 yr.	1 yr.	5,328 ⁶	.....
Arkansas.....	90 da.	none	none	5,500 ⁶	3,946
California.....	1 yr. ²¹	1 yr.	1 yr.	43,999	.....
Colorado.....	1 yr.	none	none	5,100 ⁷	.....
Connecticut.....	3 yr.	none	none	2,645	2,515
Delaware.....	2 yr.	none	none	682	587
D. C.....	1 yr. ⁶	6 mo.	6 mo.	1,911	1,164
Florida.....	6 mo.	none	none	18,744	17,853
Georgia.....	1 yr.	30 da.	30 da.	8,798 ⁶	8,112
Hawaii.....	2 yr.	none	none	1,305	.....
Idaho.....	6 wk.	none	none	2,360	2,369
Illinois.....	1 yr.	none	none	.....	.....
Indiana.....	1 yr.	none	none	.....	.....
Iowa.....	1 yr.	1 yr. ¹⁸	1 yr. ¹⁸	4,134	4,178
Kansas.....	1 yr.	6 mo.	6 mo.	4,977	4,809
Kentucky.....	1 yr.	none	none	.....	.....
Louisiana.....	1 yr.	none ⁸	none ⁸	.....	.....
Maine.....	6 mo.	none	none	1,906	1,855
Maryland.....	1 yr.	none	none	5,632	5,043
Massachusetts.....	5 yr.	6 mo.	2 yr.	5,523	.....
Michigan.....	1 yr.	(⁹)	(⁹)	15,442	.....
Minnesota.....	1 yr.	6 mo.	6 mo.	3,778	3,884
Mississippi.....	1 yr.	(¹⁰)	(¹⁰)	4,974	4,621
Missouri.....	1 yr. ²⁴	none	none	10,861 ⁶	10,842
Montana.....	1 yr.	none	none	2,004	2,031
Nebraska.....	1 yr.	6 mo.	6 mo.	2,204	.....
Nevada.....	6 wk.	none	none	9,249	.....
New Hampshire.....	1 yr.	none	none	1,039	990
New Jersey.....	2 yr.	none ²²	none ²²	4,665	4,316
New Mexico.....	1 yr. ²⁰	none	none	3,065 ⁷	1,867
New York.....	(¹¹)	none	3 yr. ¹²	(²⁶)	(²⁶)
North Carolina.....	2 yr.	none	none	.....	.....
North Dakota.....	1 yr.	(⁴)	(⁴)	545	513
Ohio.....	1 yr.	none	none	22,730	22,169
Oklahoma.....	6 mo.	6 mo.	6 mo.	12,233 ⁷	12,470
Oregon.....	1 yr. ²⁶	6 mo.	6 mo.	5,261	5,319
Pennsylvania.....	1 yr.	none	none	10,859	13,747
Rhode Island.....	2 yr.	none	none	933	.....
South Carolina.....	1 yr.	none	none	2,788	.....
South Dakota.....	1 yr.	none	none ¹⁴	622	655
Tennessee.....	1 yr.	none	none ¹³	8,602	9,024
Texas.....	1 yr.	1 yr. ¹⁶	1 yr. ¹⁶	34,871 ⁵	.....
Utah.....	3 mo.	3 mo. ²²	3 mo. ²²	1,343	2,032
Vermont.....	1 yr.	none	2 yr. ¹⁵	526	501
Virginia.....	1 yr.	4 mo.	4 mo.	6,675	6,698
Washington.....	1 yr.	none	none	12,764	.....
West Virginia.....	1 yr. ¹⁴	60 da. ¹⁷	60 da. ¹⁷	.....	.....
Wisconsin.....	2 yr.	1 yr.	1 yr.	4,375	.....
Wyoming.....	60 da.	none	none	1,148	1,160

¹ By place of occurrence, including reported annulments. Leaders (.....) indicate data unavailable. ² Provisional. ³ Divorced persons may remarry each other at any time. ⁴ At discretion of court. ⁵ Incomplete. ⁶ 2 yr. if cause for divorce occurred outside D. C. ⁷ Estimated. ⁸ For husband; 10 mo. for wife. In case of adultery, guilty party cannot marry accomplice. ⁹ At discretion of judge. ¹⁰ Until court is adjourned that grants the divorce. Court may prohibit defendant in adultery cases from remarrying. ¹¹ Action for divorce may be maintained where: (1) both parties were residents of state when offense was committed; (2) parties were married within state; (3) plaintiff was resident of state when offense was committed and is resident when action is commenced; (4) offense was committed within state and injured party is resident of state when action is commenced. ¹² By modification of decree by court. ¹³ Party guilty of adultery may never marry the correspondent. ¹⁴ In case of adultery, guilty party may not marry, except to innocent party, until death of innocent party. ¹⁵ Period may be shortened by court. ¹⁶ 2 years of residence is acquired after cause of divorce action arose. No residence required in case of adultery if personal service can be had within state. ¹⁷ Attorney can lengthen waiting period if desired. ¹⁸ Unless otherwise set out by judge. ¹⁹ For cruelty only, but technically not usually observed. ²⁰ Servicemen acquire residence by being continuously stationed at military base in state for 1 year. ²¹ Must have resided in county for 3 mo. ²² 3-mo. period between first and final judgment; in Utah, 90 days between first and final judgment, during which parties must consult counseling services. ²³ If complainant is a resident, and defendant is nonresident but within jurisdiction of court, no specific residence period is required. ²⁴ Less than year under special circumstances. ²⁵ 1957 Legislative Assembly provided that no trial be held in a divorce suit until 60 days from the service of the summons and complaint upon the defendant or the first publication of the summons except in cases of emergency or necessity. ²⁶ No central state registration.

BIRTHS

Registered Live Births and Birth Rates, 1957-58

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	Number			Rate		
	1957	1958	Per cent change	1957	1958	Per cent change
Alabama.....	83,808	81,994	-2.2	26.6	25.5	-4.1
Alaska.....	7,845	7,051	-10.1	37.2	36.2	-2.7
Arizona.....	32,281	33,410	+3.5	28.4	29.3	+3.2
Arkansas.....	42,879	41,498	-3.2	24.3	23.5	-3.3
California.....	355,498	346,645	-2.5	25.5	24.2	-5.1
Colorado.....	43,044	43,240	+0.5	25.7	25.3	-1.6
Connecticut.....	55,862	54,898	-1.7	24.8	23.7	-4.4
Delaware.....	11,887	11,751	-1.1	27.1	25.9	-4.4
D. C.....	33,344	34,120	+2.3	40.1	41.4	+3.2
Florida.....	103,927	107,837	+3.8	25.4	24.3	-4.3
Georgia.....	103,581	101,037	-2.5	27.4	26.5	-3.3
Hawaii.....	17,040	16,764	-1.6	30.9	....	....
Idaho.....	16,507	16,618	+0.7	25.8	25.1	-2.7
Illinois.....	236,143	228,262	-3.3	24.5	23.1	-5.7
Indiana.....	114,797	111,392	-3.0	25.3	24.3	-3.9
Iowa.....	64,369	63,086	-2.0	23.0	22.4	-2.6
Kansas.....	50,934	49,936	-2.0	23.8	23.6	-0.8
Kentucky.....	75,240	74,097	-1.5	24.8	24.1	-2.8
Louisiana.....	90,873	90,044	-0.9	29.6	29.0	-2.0
Maine.....	22,063	23,572	+6.8	23.4	24.8	+6.0
Maryland.....	68,049	67,311	-1.1	23.5	22.8	-3.0
Massachusetts.....	116,428 ²	(¹)	....	....	....	....
Michigan.....	207,677	201,376	-3.0	26.6	25.6	-3.8
Minnesota.....	84,788	84,704	-0.1	25.5	25.1	-1.6
Mississippi.....	61,305	59,473	-3.0	29.1	27.2	-6.5
Missouri.....	103,623	102,576	-1.0	24.4	24.0	-1.6
Montana.....	17,994	17,049	-5.3	27.0	24.8	-8.1
Nebraska.....	32,583	32,361	-0.7	22.4	22.2	-0.9
Nevada.....	6,661	6,742	+1.2	24.9	25.3	+1.6
New Hampshire.....	13,111	13,350	+1.8	22.9	22.9	0
New Jersey.....	124,572	124,605	0	22.1	21.7	-1.8
New Mexico.....	27,401	28,037	+2.3	33.0	33.3	+0.9
New York.....	360,741	362,258	+0.4	22.7	22.3	-1.8
North Carolina.....	113,567	110,950	-2.3	25.2	24.4	-3.2
North Dakota.....	16,610	16,617	0	25.8	25.6	-0.8
Ohio.....	243,137	234,914	-3.4	26.4	25.1	-4.9
Oklahoma.....	50,957	49,972	-1.9	22.4	21.9	-2.2
Oregon.....	37,437	35,973	-3.9	21.2	20.3	-4.2
Pennsylvania.....	251,021	250,073	-0.4	22.7	22.5	-0.9
Rhode Island.....	19,659	18,885	-3.9	22.8	21.6	-5.3
South Carolina.....	62,846	60,380	-3.9	26.5	25.1	-5.3
South Dakota.....	17,867	17,662	-1.1	25.5	25.3	-0.8
Tennessee.....	85,346	84,415	-1.1	24.6	24.3	-1.2
Texas.....	250,871	248,712	-0.9	27.5	26.5	-3.6
Utah.....	25,901	26,167	+1.0	30.4	30.3	-0.3
Vermont.....	8,949	9,213	+3.0	23.8	24.8	+4.2
Virginia.....	92,391	91,545	-0.9	24.3	23.3	-4.1
Washington.....	65,350	64,495	-1.3	24.0	23.6	-2.9
West Virginia.....	45,098	44,577	-1.2	22.8	22.6	-0.9
Wisconsin.....	96,106	95,864	-0.3	24.9	24.3	-2.4
Wyoming.....	8,117	7,976	-1.7	25.7	24.9	-3.1

¹ Figure not available. ² Final 1957 data. NOTE: Rates are per 1,000 estimated midyear population in each specified area; births are by place of occurrence. Data are provisional.

Live Births in the United States, 1910-1958

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year	Births ¹	Rate ²	Year	Births ¹	Rate ²	Year	Births ¹	Rate ²
1910.....	2,777,000	30.1	1927.....	2,802,000	23.5	1943.....	3,104,000	22.7
1911.....	2,809,000	29.9	1928.....	2,674,000	22.2	1944.....	2,939,000	21.2
1912.....	2,840,000	29.8	1929.....	2,582,000	21.2	1945.....	2,858,000	20.4
1913.....	2,869,000	29.5	1930.....	2,618,000	21.3	1946.....	3,411,000	24.1
1914.....	2,966,000	29.9	1931.....	2,506,000	20.2	1947.....	3,817,000	26.6
1915.....	2,965,000	29.5	1932.....	2,440,000	19.5	1948.....	3,637,000	24.9
1916.....	2,964,000	29.1	1933.....	2,307,000	18.4	1949.....	3,649,000	24.5
1917.....	2,944,000	28.5	1934.....	2,396,000	19.0	1950.....	3,632,000	24.1
1918.....	2,948,000	28.2	1935.....	2,377,000	18.7	1951 ³	3,823,000	24.9
1919.....	2,740,000	26.1	1936.....	2,355,000	18.4	1952 ³	3,913,000	25.1
1920.....	2,950,000	27.7	1937.....	2,413,000	18.7	1953 ³	3,965,000	25.0
1921.....	3,055,000	28.1	1938.....	2,496,000	19.2	1954 ³	4,078,000	25.3
1922.....	2,882,000	26.2	1939.....	2,466,000	18.8	1955 ³	4,104,000	25.0
1923.....	2,910,000	26.0	1940.....	2,559,000	19.4	1956 ³	4,218,000	25.2
1924.....	2,979,000	26.1	1941.....	2,703,000	20.3	1957 ³	4,308,000	25.3
1925.....	2,909,000	25.1	1942.....	2,989,000	22.2	1958 ⁴	4,250,000	24.5
1926.....	2,839,000	24.2						

¹ Adjusted for underregistration and for births in states not in the birth registration area from 1915 to 1932; estimates for earlier years are based upon data for a few states. ² Rates are per 1,000 population estimated as of July 1 for each year except 1940 and 1950, which are as of April, the census date; for 1941-46 based on population including armed forces overseas. ³ Based on 50% sample. ⁴ Provisional.

Live Births by Order of Birth, 1940-57

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year & race	Total	Birth Order						
		1st	2nd	3rd	4th	5th	6th & 7th	8th & over
1940.....	2,558,647	940,116	639,236	349,941	205,443	131,099	154,138	138,674
1945.....	2,858,449	961,456	763,494	445,705	248,607	148,251	159,100	131,836
1947.....	3,816,770	1,574,001	1,018,873	523,722	266,976	151,703	156,269	125,226
1948.....	3,636,627	1,343,056	1,047,097	545,131	271,888	152,191	155,567	121,697
1949.....	3,648,867	1,234,963	1,092,658	584,175	292,951	158,496	160,328	125,296
1950.....	3,631,512	1,140,398	1,096,716	630,102	314,067	165,808	162,039	122,382
1951 ¹	3,822,961	1,195,333	1,116,358	685,721	351,234	180,341	170,285	123,689
1952 ¹	3,913,115	1,169,490	1,121,825	732,939	386,813	199,921	178,022	124,105
1953 ¹	3,964,750	1,149,993	1,119,751	752,655	412,076	216,238	189,545	124,492
1954 ¹	4,078,055	1,159,644	1,119,393	785,066	442,800	234,717	206,708	129,727
1955.....	4,104,112	1,138,375	1,103,633	799,598	461,561	249,060	219,752	132,133
1956 ¹	4,218,035	1,165,552	1,109,403	820,686	483,232	263,395	236,310	139,457
1957 ¹	4,308,251	1,180,072	1,110,646	838,289	504,372	278,500	250,292	146,080
White ¹	3,648,424	1,034,144	982,918	733,936	424,707	216,780	172,802	83,137
Nonwhite ¹	659,827	145,928	127,728	104,353	79,665	61,720	77,490	62,943

Birth Rate

Year	79.9	29.3	20.0	10.9	6.4	4.1	4.8	4.3
1940.....	79.9	29.3	20.0	10.9	6.4	4.1	4.8	4.3
1945.....	85.9	28.9	22.9	13.4	7.5	4.5	4.8	4.0
1947.....	113.3	46.7	30.3	15.6	7.9	4.5	4.6	3.7
1948.....	107.3	39.6	30.9	16.1	8.0	4.5	4.6	3.6
1949.....	107.1	36.2	32.1	17.1	8.6	4.7	4.7	3.7
1950.....	106.2	33.3	32.1	18.4	9.2	4.8	4.7	3.6
1951 ¹	111.3	34.8	32.5	20.0	10.2	5.2	5.0	3.6
1952 ¹	113.5	33.9	32.5	21.3	11.2	5.8	5.2	3.6
1953 ¹	114.7	33.3	32.4	21.8	11.9	6.3	5.5	3.6
1954 ¹	117.6	33.5	32.3	22.6	12.8	6.8	6.0	3.7
1955.....	118.0	32.7	31.7	23.0	13.3	7.2	6.3	3.8
1956 ¹	120.8	33.4	31.8	23.5	13.8	7.5	6.8	4.0
1957 ¹	122.7	33.6	31.6	23.9	14.4	7.9	7.1	4.2
White ¹	117.4	33.3	31.6	23.6	13.7	7.0	5.6	2.7
Nonwhite ¹	163.4	36.1	31.6	25.8	19.7	15.3	19.2	15.6

NOTE: Birth order refers to number of children born alive to mother. Figures are shown to the last digit as computed for convenience in summation. They are not assumed to be accurate to the last digit. Figures for births of order not stated are distributed, including births that occurred in Massachusetts, which did not require the reporting of birth order. Rates are live births per 1,000 female population aged 15-44 years in each specified group. Population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1945-49 and 1951-57. Births are adjusted for under-registration. ¹ 1951-54 and 1956-57 are based on data from a 60% sample.

Crude Birth Rate for Selected Countries, 1938, 1953, 1955, 1958

Source: Statistical Office of the United Nations.

Country	Rate ¹				Country	Rate ¹			
	1938	1953	1955	1958 ²		1938	1953	1955	1958 ²
North America					Europe (cont.)				
Canada ³	20.7	28.1	28.2	27.8	Hungary.....	19.9	21.6	21.5	16.0
Costa Rica.....	45.5	47.8	48.2	54.3	Ireland.....	19.4	21.2	21.1	....
El Salvador.....	43.7	47.9	47.9	46.4	Italy.....	23.8	17.7	18.1	17.9
Mexico.....	43.5	45.0	46.4	....	Luxemburg.....	14.9	16.0	16.1	....
Nicaragua.....	40.8	42.3	42.9	....	Netherlands.....	20.5	21.8	21.4	21.2
Panama ⁴	45.5	38.6	39.8	40.3	Norway.....	15.4	18.7	18.5	18.1
Puerto Rico.....	38.6	35.1	34.4	32.7 ⁵	Portugal.....	26.6	23.4	23.9	23.1
United States ⁶	17.6	24.6	24.6	24.3	Romania.....	29.5	23.8	25.6	....
South America					Spain.....	20.1	20.6	20.6	21.8
Chile.....	36.1	34.6	35.0	....	Sweden.....	14.9	15.4	14.8	14.3
Peru ⁷.....	....	36.0	37.6	....	Switzerland.....	15.2	17.0	17.1	17.4
Venezuela ⁷	33.7	46.1	47.2	....	United Kingdom.....	15.5	15.9	15.5	16.8
Europe					Asia				
Austria.....	13.9	14.8	15.6	....	Ceylon.....	35.8	38.7	37.3	....
Belgium.....	16.0	16.6	16.8	....	India ⁹	33.3	24.8 ¹⁰	27.0 ¹¹	....
Bulgaria.....	22.8	20.7	20.0	....	Israel ¹²	26.3	30.2	27.2	24.1
Czechoslovakia.....	16.7	21.2	20.3	....	Japan ¹³	27.1	21.5	19.4 ¹⁴	....
Denmark.....	18.1	17.9	17.3	....	Other				
Finland.....	21.0 ⁸	21.9	21.2	18.5	Australia ¹⁵	17.5	22.9	22.6	22.6
France.....	15.0	18.9	18.6	18.1	New Zealand ¹⁶	18.0	24.1	24.9	25.2
Germany, West.....	19.7	15.8	16.0	17.0	U. of So. Africa ¹⁷	25.0	25.1	24.6	25.7

¹ Number of births per 1,000 population. ² Provisional. ³ Excluding Yukon and Northwest Territories. ⁴ Excluding tribal Indians. ⁵ Official rate. ⁶ Excluding Alaska. ⁷ Excluding Indian jungle population. ⁸ Finnish nationals in Finland only. ⁹ Registration area only. ¹⁰ Excluding Ajmer. ¹¹ Excluding Bihar, Madhya Pradesh, and Orissa. ¹² Jewish population only. ¹³ Japanese nationals in Japan only. ¹⁴ Including Amami Islands. ¹⁵ Excluding full-blooded aborigines. ¹⁶ Excluding Maoris. ¹⁷ White population only (about 20% of total). NOTE: Leaders (....) indicate information is not available.

Registered Live Births and Birth Rates by Race

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Rates per 1,000 population in each specified group, enumerated as of Apr. 1 for 1940 and 1950, and estimated as of July 1 for 1945 (including armed forces overseas).

Race	Births, 1957*	Rates			Race	Births, 1957*	Rates		
		1950	1945	1940			1950	1945	1940
White.....	3,621,456	22.7	19.1	17.5	Japanese.....	7,828	24.1	22.9	14.8
Negro.....	596,050	31.0	23.3	21.7	Other.....	6,806	18.3	20.7	21.0
Indian.....	17,978	39.0	26.8	28.6	All races.....	4,254,784	23.6	19.5	17.9
Chinese.....	4,666	42.9	17.1	14.2					

* Based on 50% sample of registered births.

Multiple Births in the United States, 1933-50

Source: Statistical Bulletin of the Metropolitan Life Insurance Co.

Age and color of mother	Number of confinements*	Cases of multiple births per million confinements			
		Total	Twins	Triplets	Quadruplets
Total—All ages.....	48,586,704	10,939	10,833	104	1.5
Under 20.....	5,838,182	6,167	6,127	40	.2
20-24.....	15,361,317	8,585	8,519	65	1.0
25-29.....	13,400,847	11,343	11,240	102	1.3
30-34.....	8,299,863	14,347	14,188	157	2.0
35-39.....	4,338,446	17,114	16,890	220	4.4
40-44.....	1,243,764	13,942	13,771	169	1.6
45 and over.....	104,285	8,697	8,592	86	†
Color—All Ages					
White.....	42,538,339	10,621	10,524	96	1.1
Nonwhite.....	6,048,365	13,174	13,005	165	4.3

* Confinements from which at least one infant was born alive. † Cases too few to warrant computation. Source of basic data: Various reports by the National Office of Vital Statistics. Births reported with age of mother unknown were prorated; the age distributions for 1937, 1938, 1942, and 1943 were estimated by the Statistical Bureau, Metropolitan Life Insurance Company.

Live Births by Age of Mother; U. S., 1940-1957

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year and race	Total ¹	Age of mother							45 yrs. and over ³
		Under 15 yrs. ²	15-19 yrs.	20-24 yrs.	25-29 yrs.	30-34 yrs.	35-39 yrs.	40-44 yrs.	
1940.....	2,558,647	3,865	332,667	799,537	693,268	431,468	222,015	68,269	7,558
1945.....	2,858,449	4,028	298,868	832,746	785,299	554,906	296,852	78,853	6,897
1947.....	3,816,770	4,911	445,407	1,254,902	1,069,820	635,647	318,516	81,605	6,322
1948.....	3,636,627	5,337	449,568	1,193,146	1,006,183	597,036	301,096	78,387	5,874
1949.....	3,648,867	5,445	448,768	1,183,647	1,029,851	596,014	301,785	77,585	5,772
1950.....	3,631,512	5,413	432,911	1,155,167	1,041,360	610,816	302,780	77,743	5,322
1951 ⁴	3,822,961	5,460	456,523	1,220,900	1,090,147	649,542	313,843	81,137	5,409
1952 ⁴	3,913,115	5,358	449,163	1,232,057	1,120,702	690,940	326,299	83,018	5,578
1953 ⁴	3,964,750	5,634	466,495	1,239,197	1,126,449	702,219	333,652	85,730	5,374
1954 ⁴	4,078,055	6,396	488,313	1,275,313	1,137,123	731,850	344,490	89,122	5,448
1955.....	4,014,112	6,181	493,770	1,290,939	1,133,155	732,540	352,320	89,777	5,430
1956 ⁴	4,218,035	6,656	530,017	1,341,970	1,144,456	735,734	361,933	91,834	5,435
1957 ⁴	4,308,251	7,269	559,703	1,377,463	1,153,327	740,199	371,902	92,819	5,569
White ⁴	3,648,424	2,728	433,182	1,171,151	999,576	638,582	319,491	79,277	4,437
Nonwhite ⁴	659,827	4,541	126,521	206,312	153,751	101,617	52,411	13,542	1,132

Birth rate

Year	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
1940.....	79.9	0.7	54.1	135.6	122.8	83.4	46.3	15.6	1.9
1945.....	85.9	0.8	51.1	138.9	132.2	100.2	56.9	16.6	1.6
1947.....	113.3	0.9	79.3	209.7	176.0	111.9	58.9	16.6	1.4
1948.....	107.3	1.0	81.8	200.3	163.4	103.7	54.5	15.7	1.3
1949.....	107.1	1.0	83.4	200.1	165.4	102.1	53.5	15.3	1.3
1950.....	106.2	1.0	81.6	196.6	166.1	103.7	52.9	15.1	1.2
1951 ⁴	111.3	1.0	86.9	212.0	174.2	108.3	54.1	15.3	1.2
1952 ⁴	113.5	0.9	85.4	218.1	180.4	113.1	56.1	15.3	1.2
1953 ⁴	114.7	0.9	87.5	224.5	183.8	113.0	57.3	15.5	1.1
1954 ⁴	117.6	1.0	89.8	235.6	188.5	116.4	58.8	15.8	1.1
1955.....	118.0	0.9	89.7	240.4	190.8	115.8	59.5	15.7	1.1
1956 ⁴	120.8	1.0	94.2	251.3	195.5	116.4	60.3	15.9	1.0
1957 ⁴	122.7	1.0	96.1	257.6	200.5	118.0	60.8	16.0	1.0
White ⁴	117.4	0.4	85.3	250.4	197.3	114.6	58.3	15.3	0.9
Nonwhite ⁴	163.4	5.1	170.1	307.5	224.1	144.5	82.8	22.5	2.1

NOTE: Births are adjusted for underregistration. Figures are shown to the last digit as computed for convenience in summation. They are not assumed to be accurate to the last digit. Figures for age of mother not stated are distributed. Rates are live births per 1,000 female population in each specified group, enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1945-49 and 1951-57. Figures for age of mother not stated are distributed.

¹Rates computed by relating total births, regardless of age of mother, to female population aged 15-44 years. ²Rates computed by relating births to mothers under 15 years, to female population aged 10-14. ³Rates computed by relating births to mothers 45 years and over, to female population aged 45-49 years. ⁴1951-54 and 1956-57 are based on a 50% sample.

Households, Families and Married Couples in the United States from 1890 to 1958

Source: U. S. Bureau of the Census.

Date	Households		Families		Married couples
	Number	Average population per household	Number	Average population per family	Number
June 1890.....	12,690,000	4.93	—	—	—
April 1930.....	29,905,000	4.01	—	—	25,174,000
April 1940.....	34,949,000	3.67	32,166,000	3.76	28,517,000
March 1950.....	43,554,000	3.37	39,303,000	3.54	36,091,000
March 1958.....	50,402,000	3.35	43,714,000	3.65	39,182,000

Number of Families in the U. S., April 1940 and 1950

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various reports of the Bureau of the Census.

State	1940	1950	Per cent increase	Persons per family, 1950
Alabama.....	646,000	729,765	13	3.98
Arizona.....	116,000	181,985	57	3.77
Arkansas.....	472,000	477,200	1	3.78
California.....	1,816,000	2,827,110	56	3.29
Colorado.....	278,000	338,205	22	3.51
Connecticut.....	412,000	512,280	24	3.59
Delaware.....	64,000	79,730	25	3.65
D. C.....	165,000	198,180	20	3.26
Florida.....	473,000	721,460	53	3.44
Georgia.....	715,000	824,095	15	3.91
Idaho.....	128,000	148,710	16	3.67
Illinois.....	2,008,000	2,287,955	14	3.45
Indiana.....	892,000	1,039,105	16	3.50
Iowa.....	644,000	686,785	7	3.49
Kansas.....	460,000	507,665	10	3.42
Kentucky.....	671,000	717,535	7	3.86
Louisiana.....	554,000	648,410	17	3.87
Maine.....	201,000	223,175	11	3.75
Maryland.....	431,000	581,840	35	3.68
Massachusetts.....	1,025,000	1,171,805	14	3.62
Michigan.....	1,308,000	1,624,875	24	3.62
Minnesota.....	665,000	747,680	12	3.63
Mississippi.....	504,000	508,960	1	4.04
Missouri.....	986,000	1,057,260	7	3.41
Montana.....	133,000	145,775	10	3.62
Nebraska.....	327,000	344,720	5	3.51
Nevada.....	27,000	40,945	52	3.37
New Hampshire.....	120,000	134,255	12	3.59
New Jersey.....	1,030,000	1,263,570	23	3.54
New Mexico.....	119,000	159,885	34	3.97
New York.....	3,379,000	3,862,050	14	3.47
North Carolina.....	772,000	939,215	22	4.07
North Dakota.....	139,000	144,855	4	3.94
Ohio.....	1,761,000	2,077,595	18	3.53
Oklahoma.....	587,000	590,840	1	3.50
Oregon.....	291,000	411,690	41	3.34
Pennsylvania.....	2,345,000	2,639,925	13	3.68
Rhode Island.....	167,000	198,630	19	3.63
South Carolina.....	410,000	477,780	17	4.19
South Dakota.....	149,000	160,625	8	3.73
Tennessee.....	686,000	808,145	18	3.83
Texas.....	1,580,000	1,978,950	25	3.60
Utah.....	130,000	169,925	31	3.83
Vermont.....	84,000	90,100	7	3.77
Virginia.....	593,000	785,060	32	3.85
Washington.....	451,000	625,185	39	3.36
West Virginia.....	434,000	479,265	10	3.95
Wisconsin.....	758,000	867,990	15	3.64
Wyoming.....	60,000	72,235	20	3.57
United States.....	32,166,000	38,310,980	19	3.60

Projected Population by 1970 for Leading States

Source: U. S. Bureau of the Census

State	1958*	Rank	1965	Rank	1970	Rank
New York.....	16,229,000	1	18,628,000	1	20,023,000	2
California.....	14,337,000	2	17,661,000	2	20,296,000	1
Pennsylvania.....	11,101,000	3	11,917,000	3	12,508,000	3
Illinois.....	9,889,000	4	10,613,000	6	11,353,000	6
Texas.....	9,377,000	5	10,697,000	5	11,752,000	5
Ohio.....	9,345,000	6	11,109,000	4	12,258,000	4
Michigan.....	7,866,000	7	9,380,000	7	10,483,000	7

* Estimated population as of July 1, 1958. NOTE: All figures exclude armed forces overseas.

MORTALITY

Death Rates in the United States, 1900-1958

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year	Rate ¹	Year	Rate ¹	Year	Deaths	Rate ¹
1900.....	17.2	1920.....	13.0	1940.....	1,417,269	10.8
1901.....	16.4	1921.....	11.5	1941.....	1,397,642	10.5
1902.....	15.5	1922.....	11.7	1942.....	1,385,187	10.3
1903.....	15.6	1923.....	12.1	1943.....	1,459,544	10.9
1904.....	16.4	1924.....	11.6	1944.....	1,411,338	10.6
1905.....	15.9	1925.....	11.7	1945.....	1,401,719	10.6
1906.....	15.7	1926.....	12.1	1946.....	1,395,617	10.0
1907.....	15.9	1927.....	11.3	1947.....	1,445,370	10.1
1908.....	14.7	1928.....	12.0	1948.....	1,444,337	9.9
1909.....	14.2	1929.....	11.9	1949.....	1,443,607	9.7
1910.....	14.7	1930.....	11.3	1950.....	1,452,454	9.6
1911.....	13.9	1931.....	11.1	1951.....	1,482,099	9.7
1912.....	13.6	1932.....	10.9	1952.....	1,496,838	9.6
1913.....	13.8	1933.....	10.7	1953.....	1,517,541	9.6
1914.....	13.3	1934.....	11.1	1954.....	1,481,091	9.2
1915.....	13.2	1935.....	10.9	1955.....	1,528,717	9.3
1916.....	13.8	1936.....	11.6	1956.....	1,564,476	9.4
1917.....	14.0	1937.....	11.3	1957.....	1,633,128	9.6
1918.....	18.1	1938.....	10.6	1958 ²	1,647,000	9.5
1919.....	12.9	1939.....	10.6			

¹ Rates are per 1,000 population as of July 1 for each year except 1940 and 1950 which are as of April 1, the census date. Rates are based on population excluding armed forces overseas. Fetal deaths are excluded. Data relate to the total United States only from 1933; for earlier years, the death rates relate to Death Registration States. ² Provisional.

Death Rates* by Age and Sex; U. S., 1900-1958

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Age group, years	1900	1920	1940	1950	1958	1900	1920	1940	1950	1958
	White Males					White Females				
Under 1.....	175.9	98.1	56.7	34.0	29.6	142.6	76.1	43.6	25.7	21.8
1-4.....	20.2	9.8	2.8	1.4	1.0	18.7	9.0	2.4	1.1	0.9
5-14.....	3.8	2.7	1.1	.7	0.5	3.8	2.3	.8	.5	0.4
15-24.....	5.8	4.2	2.0	1.5	1.4	5.6	4.3	1.4	.7	0.6
25-34.....	8.1	5.9	2.8	1.9	1.6	8.1	6.5	2.2	1.1	0.8
35-44.....	10.6	7.7	5.1	3.8	3.4	9.6	7.3	3.7	2.4	1.9
45-54.....	15.5	12.0	11.4	9.8	9.2	14.0	10.9	7.5	5.5	4.6
55-64.....	28.5	24.2	25.2	23.0	22.3	25.5	21.7	16.8	12.9	10.7
65-74.....	59.1	54.2	54.0	48.6	50.9	53.4	49.9	41.5	32.4	30.3
75-84.....	128.2	122.5	122.0	105.3	103.4	118.9	116.4	104.8	84.8	77.8
85 and over.....	...	...	251.4	221.2	215.4	...	...	235.0	196.8	213.4
	Nonwhite Males					Nonwhite Females				
Under 1.....	369.3	167.7	101.2	59.9	60.5	299.5	131.1	77.4	47.5	47.2
1-4.....	43.4	15.0	5.3	2.7	1.9	43.5	14.2	4.4	2.3	1.9
5-14.....	7.8	3.7	1.6	1.0	0.7	10.1	3.9	1.4	.7	0.6
15-24.....	11.8	9.9	5.0	2.9	2.1	11.2	10.8	5.0	2.2	1.1
25-34.....	12.5	12.2	8.5	5.0	4.1	11.7	13.5	7.4	3.9	2.8
35-44.....	14.2	14.4	13.2	8.6	7.1	15.6	16.0	11.7	7.5	5.8
45-54.....	24.7	20.1	24.5	18.6	15.6	23.9	23.4	21.1	15.5	11.7
55-64.....	42.1	31.1	37.1	34.8	31.9	42.1	35.8	33.2	27.6	25.2
65-74.....	71.6	60.2	62.8	57.9	70.5	66.4	60.4	52.3	46.1	53.2
75-84.....	131.4	116.0	108.8	90.3	86.6	113.2	106.4	84.1	70.6	62.1
85 and over.....	...	...	199.7	160.2	105.9	...	...	159.7	133.7	100.4

* Rates per 1,000 population of specified age; sex and race; 1958 is estimated.

Deaths and Infant Deaths in Each State Reporting, 1957-58

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	DEATHS (ALL AGES)						INFANT DEATHS (UNDER 1 YEAR)					
	Number			Rate			Number			Rate		
	1957	1958	Percent change	1957	1958	Percent change	1957	1958	Percent change	1957	1958	Percent change
Alabama.....	28,201	29,362	+4.1	8.9	9.1	+2.2	2,703	2,912	+7.7	32.3	35.5	+9.9
Alaska.....	1,279	1,183	-7.5	6.2	.....	.....	308	277	-10.1	39.0	38.5	-1.3
Arizona.....	9,164	9,555	+4.3	8.1	8.4	+3.6	1,135	1,129	-0.5	35.2	33.8	-4.0
Arkansas.....	16,587	17,109	+3.1	9.4	9.7	+3.2	1,062	1,047	-1.4	24.8	25.2	+1.6
California.....	125,783	123,443	-1.9	9.0	8.6	-4.4	8,714	8,420	-3.4	24.5	24.3	-0.8
Colorado.....	14,706	14,848	+1.0	8.8	8.7	-1.1	1,229	1,322	+7.6	28.6	30.6	+7.0
Connecticut.....	22,422	22,861	+2.0	10.0	9.9	-1.0	1,217	1,298	+6.7	21.8	23.6	+8.3
Delaware.....	4,095	4,228	+3.2	9.3	9.3	0	269	315	+17.1	22.6	26.8	+18.6
D. C.....	9,932	10,084	+1.5	12.0	12.2	+1.7	931	1,003	+7.7	27.9	29.4	+5.4
Florida.....	41,828	45,157	+8.0	10.2	10.2	0	3,317	3,421	+3.1	31.9	31.7	-0.6
Georgia.....	33,749	33,293	-1.4	8.9	8.7	-2.2	3,144	3,016	-4.1	30.4	29.9	-1.6
Hawaii.....	3,424	3,179	-7.1	5.6	.....	.....	409	389	-4.9	23.9	23.2	-2.9
Idaho.....	5,097	5,092	-0.1	8.0	7.7	-3.8	389	374	-3.9	23.6	22.5	-4.7
Illinois.....	100,940	100,332	-0.6	10.5	10.1	-3.8	5,950	5,763	-3.1	25.2	25.2	0
Indiana.....	43,536	43,297	-0.5	9.6	9.5	-1.0	2,729	2,720	-0.3	23.8	24.4	+2.5
Iowa.....	28,036	27,769	-1.0	10.0	9.8	-2.0	1,327	1,405	+5.9	20.6	22.3	+8.3
Kansas.....	20,268	20,220	-0.2	9.5	9.6	+1.0	1,149	1,173	+2.1	22.6	23.5	+4.0
Kentucky.....	29,236	28,899	-1.2	9.6	9.4	-2.1	2,201	2,176	-1.1	29.3	29.4	+0.3
Louisiana.....	28,357	28,945	+2.1	9.2	9.3	+1.1	2,913	3,113	+6.9	32.1	34.6	+7.8
Maine.....	10,420	10,424	0	11.0	10.9	-1.0	558	528	-5.4	25.3	22.4	-11.5
Maryland.....	26,477	27,079	+2.3	9.1	9.2	+1.1	2,019	2,079	+3.0	29.7	30.9	+4.0
Massachusetts.....	54,619*	.....	.....	.....	.....	.....	2,655*	.....	.....	.....	.....	.....
Michigan.....	66,116	65,548	-0.9	8.5	8.3	-2.3	5,089	4,943	-2.9	24.5	24.5	0
Minnesota.....	31,780	31,243	-1.7	9.6	9.3	-3.1	1,907	1,917	+0.5	22.5	22.6	+0.4
Mississippi.....	20,329	21,492	+5.7	9.3	9.8	+5.4	2,328	2,465	+5.9	36.6	41.4	+13.1
Missouri.....	47,937	47,828	-0.2	11.3	11.2	-0.9	2,397	2,706	+12.9	23.1	26.4	+14.3
Montana.....	6,427	6,162	-4.1	9.7	9.0	-7.2	461	435	-5.6	25.6	25.5	-0.4
Nebraska.....	13,671	13,376	-2.2	9.4	9.2	-2.1	655	712	+8.7	20.1	22.0	+9.5
Nevada.....	2,274	2,530	+11.3	8.5	9.5	+11.8	205	215	+4.9	30.8	31.9	+3.6
New Hampshire.....	6,785	6,642	-2.1	11.9	11.4	-4.2	347	326	-6.1	26.5	24.4	-7.9
New Jersey.....	56,077	56,486	+0.7	10.0	9.8	-2.0	2,952	3,012	+2.0	23.7	24.2	+2.1
New Mexico.....	6,194	6,214	+0.3	7.5	7.4	-1.3	1,063	1,063	0	38.8	37.9	-2.3
New York.....	172,751	173,832	+0.6	10.9	10.7	-1.8	8,626	8,874	+2.9	23.9	24.5	+2.5
North Carolina.....	35,422	36,067	+1.8	7.9	7.9	0	3,612	3,692	+2.2	31.8	33.3	+4.7
North Dakota.....	5,504	5,217	-5.2	8.5	8.0	-5.9	443	429	-3.2	26.7	25.8	-3.4
Ohio.....	90,843	91,511	+0.7	9.9	9.8	-1.0	5,809	5,746	-1.1	23.9	24.5	+2.5
Oklahoma.....	21,085	21,335	+1.2	9.3	9.3	0	1,299	1,377	+6.0	25.5	27.6	+8.2
Oregon.....	15,572	15,406	-1.1	8.8	8.7	-1.1	837	849	+1.4	22.4	23.6	+5.4
Pennsylvania.....	118,395	118,207	-0.2	10.7	10.6	-0.9	6,262	6,352	+1.4	24.9	25.4	+2.0
Rhode Island.....	8,535	8,866	+3.9	9.9	10.1	+2.0	449	407	-9.4	22.8	21.6	-5.3
South Carolina.....	18,670	19,171	+5.6	7.9	8.2	+3.8	1,910	2,048	+7.2	30.4	33.9	+11.5
South Dakota.....	6,379	6,629	+3.9	9.1	9.5	+4.4	485	470	-3.1	27.1	26.6	-1.8
Tennessee.....	32,757	33,624	+2.6	9.5	9.7	+2.1	2,646	2,667	+0.8	31.0	31.6	+1.9
Texas.....	73,299	73,314	0	8.0	7.8	-2.5	6,947	6,756	-2.7	27.7	27.2	-1.8
Utah.....	5,756	6,274	+9.0	6.8	7.3	+7.4	571	605	+6.0	22.0	23.1	+5.0
Vermont.....	4,409	4,276	-3.0	11.7	11.5	-1.7	244	216	-11.5	27.3	23.4	-14.3
Virginia.....	32,632	32,657	-0.1	8.6	8.3	-3.5	2,884	2,878	-0.2	31.2	31.4	+0.6
Washington.....	25,420	25,623	+0.8	9.3	9.3	0	1,616	1,668	+3.2	24.7	25.9	+4.9
West Virginia.....	17,709	17,795	+0.5	9.0	9.0	0	1,160	1,124	-3.1	25.7	25.2	-1.9
Wisconsin.....	37,183	37,415	+0.6	9.6	9.5	-1.0	2,120	2,169	+2.3	22.1	22.6	+2.3
Wyoming.....	2,655	2,581	-2.8	8.4	8.1	-3.6	202	223	+10.4	24.9	28.0	+12.4

NOTE: Rates for deaths at all ages are per 1,000 estimated midyear population in each specified area; infant mortality rates are deaths under one year per 1,000 live births in each specified area. Data are by place of occurrence, exclusive of fetal deaths and of deaths among armed forces overseas. Data are provisional. Leaders (.....) indicate data not available. * Final data.

Average of Annual Death Rates for Selected Causes; U. S., 1900-1958

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Cause of death	Death rates per 100,000 in						
	5th Revision					6th Revision	7th Revision
	1900-04	1920-24	1940-44	1945-49	1950	1950	1958
Typhoid fever.....	26.8	7.4	.7	.2	.1	.1	(*)
Communicable diseases of childhood.....	65.3	34.0	4.6	2.3	1.3	1.5	(*)
Measles.....	10.0	7.2	1.1	.5	.3	.3	.3
Scarlet fever.....	11.8	4.0	.3	.1	(*)	.2	(*)
Whooping cough.....	10.7	9.0	2.2	1.0	.7	.7	.1
Diphtheria.....	32.8	13.8	1.0	.7	.3	.3	.1
Diarrhea and enteritis.....	115.6	43.2	9.8	6.5	5.0	5.1	4.7
Pneumonia and influenza.....	184.4	141.1	63.8	42.5	35.1	31.3	33.1
Influenza.....	22.9	35.2	13.1	5.1	3.5	4.4	2.8
Pneumonia.....	161.5	105.9	50.7	37.4	31.6	26.9	30.3
Tuberculosis.....	184.8	97.1	43.5	33.5	23.4	22.5	7.0
Cancer.....	67.6	86.8	123.2	133.8	138.4	139.8	145.6
Diabetes mellitus.....	12.2	17.0	26.2	26.8	28.4	16.2	15.4
Cardiovascular-renal diseases.....	338.2	340.9	466.1	465.5	465.0	510.8	524.0
Diseases of the heart.....	147.7	166.1	302.2	318.6	326.1	355.5	365.7
Cerebral hemorrhage.....	106.3	93.4	91.8	91.5	92.0	104.0	111.4
Chronic nephritis.....	84.2	81.4	72.1	55.3	46.9	16.4	7.9
Syphilis.....	12.9	17.5	12.7	8.9	6.8	5.0	2.2
Appendicitis.....	9.3	14.0	7.3	3.5	2.2	2.0	1.1
Accidents, all forms.....	79.1	71.6	73.4	68.4	63.8	60.6	53.7
Motor vehicle accidents.....	—	12.8	22.7	22.3	23.1	23.1	22.3
Infant mortality ¹	—	77.1	42.6	33.5	29.2	29.2	26.9
Neonatal mortality ¹	—	39.8	26.3	22.9	20.5	20.5	19.4
Fetal mortality ¹	—	39.2 ³	28.6	24.5	22.9	22.9	(*)
Maternal mortality ¹	—	6.9	2.9	1.4	.8	.8	.4
All causes.....	1622.3	1198.0	1062.8	1005.4	963.8	963.8	950.6

¹ Rates per 1,000 live births. ² Less than .05. ³ 1922-24. ⁴ Not available. NOTE: Rates per 100,000 population. The figures beginning with 1940 relate to the total United States; for earlier periods the figures relate to the Death Registration States. The death rates for 1950 are shown on the basis of both the Fifth and the Sixth Revisions of the International List of Causes of Death. Because of radical changes from the Fifth to the Sixth Revision, the death rates are not strictly comparable. Death rates for 1958 are based upon the Seventh Revision.

Death Rates by Marital Status, Age, and Sex; U. S., Annual Average for 1949-51

Source: D. Shurtleff, "Mortality and Marital Status," Public Health Reports, March 1955.

Age (in years)	Male					Female				
	Single	Married	Widowed	Divorced	Total ¹	Single	Married	Widowed	Divorced	Total ¹
Under 20 ²	3.4	1.6	2.0	2.3	3.4	2.6	1.0	4.8	1.6	2.5
20-24.....	2.2	1.6	5.7	3.4	1.9	1.2	.9	3.4	1.7	1.0
25-34.....	3.6	1.7	8.6	5.8	2.2	2.2	1.2	4.1	2.6	1.4
35-44.....	8.5	3.6	12.1	11.8	4.3	3.9	2.6	6.2	4.5	2.9
45-54.....	17.8	9.3	21.6	23.2	10.7	7.0	5.7	10.3	8.1	6.5
55-59.....	30.0	17.8	30.4	36.5	20.0	11.5	10.2	14.8	13.8	11.4
60-64.....	41.0	25.8	39.5	48.6	29.0	16.6	15.7	20.7	21.1	17.5
65-69.....	55.0	36.5	50.0	66.1	41.1	24.8	23.5	28.1	33.1	26.0
70-74.....	78.8	54.3	69.1	91.9	60.4	42.3	39.0	44.8	58.2	43.2
75 and over.....	137.3	100.3	139.0	173.3	119.4	103.6	76.0	106.2	129.2	101.6
All ages ³ ...	5.4	12.1	70.5	26.1	11.1	3.9	5.8	41.1	8.8	8.3

¹ Includes deaths for which marital status was not stated. ² Includes deaths for which age was not stated. ³ Rates for "Total" and "Single" are based on deaths and population at ages 0-19 years. Rates for "Married," "Widowed," and "Divorced" are based on deaths and population at ages 15-19 years. NOTE: Rates are per 1,000 population in each specified group enumerated in the Census of April 1, 1950. Deaths among armed forces overseas are excluded.

Crude Death Rate for Selected Countries, 1938, 1953, 1955, 1958

Source: Statistical Office of the United Nations.

Country	Rate ¹				Country	Rate ¹			
	1938	1953	1955	1958 ²		1938	1953	1955	1958 ²
North America					Europe (contd.)				
Canada ³	9.7	8.6	8.2	7.9	Hungary.....	14.3	11.7	10.0	9.9
Costa Rica.....	17.7	11.7	10.5	8.7	Ireland.....	13.6	11.7	12.6	...
El Salvador.....	19.1	14.7	14.2	13.3	Italy.....	14.1	10.0	9.3	9.4
Mexico.....	22.9	15.9	13.7	...	Luxemburg.....	12.7	12.5	11.3	...
Nicaragua.....	14.5	10.2	9.2	...	Netherlands.....	8.5	7.7	7.6	7.5
Panama ⁴	14.2	9.4	9.3	9.0	Norway.....	9.9	8.5	8.5	8.9
Puerto Rico.....	18.7	8.1	7.2	7.0 ⁵	Portugal.....	15.4	11.3	11.3	10.2
United States ⁶	10.6	9.6	9.3	9.5	Rumania.....	19.1	11.6	9.7	...
South America					Spain.....	19.3	9.7	9.4	8.7
Chile.....	23.1	12.4	12.8	...	Sweden.....	11.5	9.7	9.5	9.6
Peru ⁷	16.2	12.2	11.8	...	Switzerland.....	11.6	10.2	10.1	9.5
Venezuela ⁸	18.3	9.9	10.3	...	United Kingdom.....	11.8	11.4	11.7	11.7
Europe					Asia				
Austria.....	14.0	12.0	12.2	...	Ceylon.....	21.0	10.7	10.8	...
Belgium.....	13.2	12.1	12.3	...	India ⁹	23.7	14.5 ¹⁰	11.7 ¹¹	...
Bulgaria.....	13.7	9.2	9.0	...	Israel ¹²	8.1	6.3	5.8	5.7
Czechoslovakia.....	13.2	10.5	9.6	...	Japan ¹³	17.7	8.9	7.8 ¹⁴	...
Denmark.....	10.3	9.0	8.7	...	Other				
Finland.....	12.8 ⁵	9.6	9.3	8.9	Australia ¹⁵	9.6	9.1	8.9	8.5
France.....	15.8	13.1	12.2	11.1	New Zealand ¹⁶	9.7	8.8	9.0	8.9
Germany, West.....	11.4	11.2	11.0	10.8	U. of So. Africa ¹⁷	9.5	8.6	8.1	8.6

¹ Number of deaths per 1,000 population. ² Provisional. ³ Excluding Yukon and Northwest Territories. ⁴ Excluding tribal Indians. ⁵ Official rate. ⁶ Excluding Alaska. ⁷ Excluding Indian jungle population. ⁸ Finnish nationals in Finland only. ⁹ Registration area only. ¹⁰ Excluding Ajmer. ¹¹ Excluding Bihar, Madhya Pradesh, and Orissa. ¹² Jewish population only. ¹³ Japanese nationals in Japan only. ¹⁴ Including Amami Islands. ¹⁵ Excludes full-blooded aborigines. ¹⁶ Excluding Maoris. ¹⁷ White population only (about 20% of total). NOTE: Leaders (....) indicate information is not available.

Transportation-Accident Death Rates, 1956-58

Source: National Safety Council.

Kind of transportation	1958			1956-58 average death rate ¹
	Passenger miles	Passenger deaths	Death rate ¹	
Passenger automobiles and taxis.....	1,030,000,000,000	24,200 ²	2.3	2.5
Busses.....	50,700,000,000	120	0.24	0.19
Railroad passenger trains.....	23,270,000,000	62	0.27	0.18
Scheduled air transport planes (domestic).....	26,270,000,000	114	0.43	0.38

¹ Per 100,000,000 passenger miles. ² Drivers of passenger automobiles are considered passengers.

One Accidental Death Every 6 Minutes

Source: National Safety Council.

The nation's 1957 accident totals can be figured at the following approximate rates:

Class of accident	One every		Class of accident	One every	
All accidents	Deaths	6 minutes	Workers off-job	Deaths	17 minutes
	Injuries	3 seconds		Injuries	13 seconds
Motor-vehicle	Deaths	14 minutes	Home	Deaths	19 minutes
	Injuries	23 seconds		Injuries	8 seconds
Work	Deaths	37 minutes	Public non-motor-vehicle	Deaths	30 minutes
	Injuries	16 seconds		Injuries	15 seconds

Motor-Vehicle Deaths by Type of Accident, 1913 to 1958

Source: National Safety Council.

Year	Deaths from collisions with—							Deaths from non-collision accidents*	Total deaths†
	Pedestrians	Other motor vehicles	Rail-road trains	Street cars	Bi-cycles	Animal-drawn vehicle or animal	Fixed objects*		
1913.....	.....	.....	.....	.....	.....	.....	.....	.....	4,200
1918.....	.....	.....	.....	.....	.....	.....	.....	.....	10,700
1923.....	.....	.....	.....	.....	.....	.....	.....	.....	18,400
1928.....	11,420	4,310	2,140	570	950		540	8,070	28,000
1933.....	12,840	6,470	1,437	318	400	310	900	8,680	31,363
1938.....	12,850	8,900	1,490	165	720	170	940	7,350	32,582
1943.....	9,900	5,300	1,448	171	450	160	700	5,690	23,823
1948.....	9,950	10,200	1,474	83	500	100	1,000	8,950	32,259
1950.....	9,100	11,250	1,541	89	450	110	1,300	10,950	34,763
1953.....	8,700	12,600	1,506	26	450	100	1,500	13,050	37,955
1955.....	8,200	13,000	1,490	15	450	100	1,600	13,550	38,426
1956.....	7,950	13,650	1,377	11	470	120	1,600	14,450	39,268
1957.....	7,900	13,500	1,376	13	500	110	1,650	13,650	38,702
1958.....	7,800	12,600	1,207	10	480	100	1,700	13,100	37,000

* The proportion of deaths allocated to fixed-object collisions and noncollision accidents is different from that reported by most states. State reports generally indicate that many accidents involving no collision on the roadway are classified as fixed-object collisions because the motor vehicle collides with an object after leaving the roadway.

† The totals do not quite equal the sum of the various types because the estimates were generally made only to the nearest 10 deaths, and to the nearest 50 deaths for certain types.

Motor-Vehicle Traffic Deaths by States, 1957-58

Source: National Safety Council.

State	1957	Rate ¹	1958	Rate ¹	State	1957	Rate ¹	1958	Rate ¹
Alabama.....	927	8.6	852	7.6	Montana.....	210	6.9	193	5.9
Alaska.....	28	...	31	...	Nebraska.....	304	4.8	346	5.4
Arizona.....	462	9.0	508	9.1	Nevada.....	139	8.3	140	8.1
Arkansas.....	498	7.8	444	6.6	New Hampshire.....	94	4.0	101	4.3
California.....	3,691	6.0	3,510	5.5	New Jersey.....	833	3.7	754	3.2
Colorado.....	368	5.2	396	5.5	New Mexico.....	427	9.2	408	8.7
Connecticut.....	283	3.2	251	2.7	New York.....	2,191	5.0	2,118	4.7
Delaware.....	91	4.7	84	4.3	North Carolina.....	1,064	6.5	1,081	6.5
D. C.....	69	2.9	62	2.6	North Dakota.....	147	6.1	155	6.3
Florida.....	1,087	6.0	1,134	5.9	Ohio.....	2,053	5.5	1,812	4.8
Georgia.....	1,013	7.0	956	6.4	Oklahoma.....	703	7.1	667	6.5
Hawaii.....	96	...	...	...	Oregon.....	467	6.2	448	5.8
Idaho.....	205	7.0	270	8.8	Pennsylvania.....	1,698	4.5	1,654	4.3
Illinois.....	2,096	6.1	1,886	5.3	Rhode Island.....	81	2.7	74	2.5
Indiana.....	1,176	5.9	1,056	5.3	South Carolina.....	715	8.8	610	7.3
Iowa.....	690	6.4	598	5.0	South Dakota.....	178	6.3	240	8.5
Kansas.....	585	6.4	554	5.9	Tennessee.....	699	5.7	719	5.6
Kentucky.....	814	8.1	789	7.6	Texas.....	2,539	6.1	2,342	5.4
Louisiana.....	829	8.0	844	7.8	Utah.....	222	6.2	191	5.2
Maine.....	153	4.1	205	5.3	Vermont.....	106	7.1	77	5.1
Maryland.....	552	5.6	505	4.9	Virginia.....	912	6.2	861	5.7
Massachusetts.....	523	3.3	590	3.6	Washington.....	549	5.2	573	5.3
Michigan.....	1,548	5.3	1,375	4.6	West Virginia.....	479	8.0	387	6.4
Minnesota.....	685	5.2	707	5.1	Wisconsin.....	919	6.7	822	5.7
Mississippi.....	526	7.4	548	7.3	Wyoming.....	157	7.7	137	6.7
Missouri.....	996	5.5	975	5.3					

¹ Number of deaths per 100,000,000 vehicle-miles. NOTE: Figures are per state traffic authorities and indicate place of accident rather than of death.

Average Annual Accidental Death Rates, 1954-55

(Rates are per 100,000 population by place of residence)

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various reports by the National Office of Vital Statistics.

State	Accidents, total	Motor vehicles	Falls	Burns and conflagrations	Drownings	Fire-arms	Machinery	Poisoning by solids and liquids	Absorption of poisonous gas	Water transport
Alabama.....	62.5	27.3	7.3	7.7	3.5	2.1	1.3	1.1	.3	1.5
Alaska.....	145.5	14.4	6.7	11.0	9.6	6.7	2.4	2.9	1.0	22.0
Arizona.....	73.5	36.1	7.0	5.9	5.2	1.9	1.0	1.9	.6	.3
Arkansas.....	65.3	24.7	8.2	8.7	3.7	2.8	2.2	.9	.3	1.3
California.....	54.4	27.0	7.9	3.3	3.0	.9	.8	1.6	.8	.8
Colorado.....	62.9	26.7	12.4	2.9	2.9	2.3	1.8	1.1	.5	.6
Connecticut.....	46.0	14.2	15.1	2.6	2.7	.4	.6	1.0	1.0	1.0
Delaware.....	59.1	24.6	10.1	5.3	4.4	.7	1.5	1.4	.5	2.5
D. C.....	50.3	13.2	18.9	4.3	2.3	.3	.2	1.0	.3	.9
Florida.....	64.6	27.5	9.8	4.6	5.4	2.4	1.0	1.3	.7	1.7
Georgia.....	64.3	28.2	7.3	7.1	3.5	2.6	1.5	1.4	.4	1.2
Hawaii.....	38.9	11.4	*	*	*	*	*	*	*	*
Idaho.....	79.4	34.5	9.0	4.3	4.6	3.9	4.6	.9	.8	1.7
Illinois.....	50.3	20.7	11.9	3.6	2.7	1.2	1.2	.7	.8	.6
Indiana.....	61.9	25.9	15.7	4.4	2.7	1.3	1.3	.7	.8	.6
Iowa.....	62.9	23.7	17.2	3.6	2.5	1.0	3.0	.3	.5	.8
Kansas.....	71.9	29.5	13.4	5.3	2.6	1.6	2.1	.5	.9	.4
Kentucky.....	68.0	27.4	13.2	6.3	3.5	2.3	1.5	.9	.6	.6
Louisiana.....	60.2	22.2	8.7	6.7	5.3	2.0	1.5	.9	.3	2.9
Maine.....	58.0	18.4	12.6	5.5	4.2	1.6	1.5	.8	1.6	2.8
Maryland.....	50.2	18.7	11.5	4.4	3.1	1.0	.9	.8	.5	1.2
Massachusetts.....	54.8	13.1	25.9	3.5	2.7	.5	.6	.7	.8	.6
Michigan.....	57.1	28.3	11.4	3.2	3.1	.9	1.0	.5	.7	1.3
Minnesota.....	54.1	21.0	13.8	3.0	3.0	.9	2.1	.7	.9	1.3
Mississippi.....	63.1	23.3	6.9	9.9	4.5	3.3	1.5	1.0	.1	1.2
Missouri.....	66.9	25.1	16.8	5.0	2.4	2.1	1.9	.9	.5	.8
Montana.....	90.1	36.7	14.8	5.1	5.2	3.6	3.4	.9	2.2	1.6
Nebraska.....	62.4	24.6	14.1	3.6	2.6	1.4	2.9	.6	.4	.4
Nevada.....	93.9	47.1	10.2	4.9	4.5	3.8	.7	1.6	.7	.3
New Hampshire.....	52.8	17.2	16.1	4.6	3.6	.8	1.1	1.0	.6	.8
New Jersey.....	41.6	14.4	12.7	3.3	2.6	.4	.5	.5	1.0	.6
New Mexico.....	77.0	37.3	5.9	4.3	3.9	4.0	1.8	1.4	1.3	.5
New York.....	44.2	14.2	15.4	3.0	2.6	.5	.6	.5	1.1	.6
North Carolina.....	59.2	26.7	6.8	5.5	3.9	1.8	1.2	1.2	.3	1.4
North Dakota.....	63.0	25.8	11.5	3.3	3.6	2.2	3.9	.5	.9	.8
Ohio.....	55.0	23.2	15.1	3.5	2.2	.7	1.1	.6	1.1	.7
Oklahoma.....	68.1	26.9	11.5	5.5	3.6	2.2	1.4	.8	.9	.4
Oregon.....	64.2	25.8	9.6	3.9	4.2	1.9	2.7	.9	1.3	1.9
Pennsylvania.....	50.7	17.0	16.5	3.4	2.1	.8	1.1	.7	1.0	.5
Rhode Island.....	44.0	10.7	18.3	2.7	3.0	.4	.3	.9	.6	2.0
South Carolina.....	60.3	26.8	5.3	7.2	4.0	2.6	1.2	1.6	.3	1.2
South Dakota.....	67.9	27.5	11.7	3.3	4.0	2.4	3.6	.6	.9	.8
Tennessee.....	54.3	24.9	8.6	4.9	2.8	1.9	1.3	.8	.4	1.0
Texas.....	62.6	29.7	7.7	5.3	4.1	2.2	1.4	.9	.5	.7
Utah.....	59.4	25.9	10.3	1.9	2.6	2.9	1.4	.8	.4	.5
Vermont.....	55.4	18.3	14.8	3.2	4.2	1.4	2.3	.5	.8	1.9
Virginia.....	56.6	22.5	9.0	6.5	3.4	1.6	1.0	1.2	.4	1.2
Washington.....	58.8	20.1	12.6	4.1	4.2	1.3	1.4	1.1	1.5	1.6
West Virginia.....	59.7	19.8	10.1	5.2	3.6	2.6	1.8	.8	1.1	.6
Wisconsin.....	53.6	24.1	12.6	2.3	3.1	1.0	1.8	.5	.6	1.4
Wyoming.....	86.2	38.2	10.2	4.9	4.2	4.5	3.5	.7	2.5	.7
United States.....	56.4	22.8	12.3	4.4	3.1	1.4	1.2	.9	.8	.9

*Not available

HOSPITALS

Hospital Facilities in the U. S., 1958

Source: American Hospital Association.

State	Total—all hospitals			State	Total—all hospitals		
	No. of hospitals	No. of beds	Admissions during year*		No. of hospitals	No. of beds	Admissions during year*
Alabama.....	128	23,126	402,612	Nebraska.....	111	12,352	214,809
Alaska.....	24	1,782	38,847	Nevada.....	18	1,748	42,134
Arizona.....	70	8,093	178,532	New Hampshire.....	38	5,849	89,947
Arkansas.....	83	15,122	233,680	New Jersey.....	152	51,648	664,657
California.....	427	124,702	1,851,166	New Mexico.....	51	5,419	126,497
Colorado.....	96	16,791	300,344	New York.....	485	227,617	2,222,235
Connecticut.....	71	22,402	320,699	North Carolina.....	174	32,328	631,493
Delaware.....	16	5,265	54,364	North Dakota.....	63	5,779	121,974
D. of C.....	23	15,405	188,968	Ohio.....	253	75,679	1,208,201
Florida.....	158	26,612	589,667	Oklahoma.....	128	17,628	306,983
Georgia.....	141	27,619	492,682	Oregon.....	79	13,944	237,765
Hawaii.....	32	6,229	98,339†	Pennsylvania.....	334	108,445	1,452,786
Idaho.....	50	3,775	93,988	Rhode Island.....	23	9,205	108,284
Illinois.....	325	102,677	1,374,627	South Carolina.....	77	15,999	307,491
Indiana.....	137	31,095	528,835	South Dakota.....	66	6,631	116,046
Iowa.....	124	20,588	368,610	Tennessee.....	150	27,938	476,929
Kansas.....	153	17,467	330,401	Texas.....	550	59,544	1,388,321
Kentucky.....	132	23,185	399,956	Utah.....	36	4,847	100,100
Louisiana.....	134	24,406	492,292	Vermont.....	32	4,135	60,450
Maine.....	59	9,412	120,333	Virginia.....	120	32,496	498,013
Maryland.....	80	29,438	330,934	Washington.....	132	22,197	428,338
Massachusetts.....	208	65,673	728,427	West Virginia.....	90	15,821	291,703
Michigan.....	248	70,899	1,025,964	Wisconsin.....	194	31,192	594,232
Minnesota.....	204	36,900	551,073	Wyoming.....	31	3,707	57,183
Mississippi.....	105	14,381	264,429	Total.....	6,818	1,578,265	23,795,496
Missouri.....	142	37,289	562,316				
Montana.....	61	5,784	126,840				

* Data estimated for nonreporting hospitals. Excludes newborn. † No information for one hospital.

EXPECTATION OF LIFE

Expectation of Life and Mortality Rates, 1957

Source: Metropolitan Life Insurance Co. from abridged life tables prepared by U. S. Public Health Service.

Age, years	Expectation of Life in Years					Mortality Rate per 1,000				
	Total Persons	White		Nonwhite		Total Persons	White		Nonwhite	
		Male	Female	Male	Female		Male	Female	Male	Female
0.....	69.3	67.1	73.5	60.3	65.2	26.4	26.5	20.1	48.0	39.8
1.....	70.2	67.9	74.0	62.4	66.9	1.9	1.7	1.5	3.7	3.3
2.....	69.3	67.0	73.2	61.6	66.1	1.1	1.0	.8	2.0	1.6
3.....	68.4	66.1	72.2	60.7	65.2	.8	.8	.7	1.3	1.1
4.....	67.4	65.1	71.3	59.8	64.3	.7	.7	.5	1.1	1.0
5.....	66.5	64.2	70.3	58.9	63.4	.6	.6	.4	.9	.8
6.....	65.5	63.2	69.3	57.9	62.4	.5	.6	.4	.7	.7
7.....	64.6	62.3	68.4	57.0	61.5	.5	.5	.4	.7	.6
8.....	63.6	61.3	67.4	56.0	60.5	.4	.5	.3	.6	.5
9.....	62.6	60.3	66.4	55.0	59.5	.4	.4	.3	.6	.4
10.....	61.6	59.4	65.4	54.1	58.6	.4	.4	.3	.7	.4
11.....	60.7	58.4	64.5	53.1	57.6	.4	.4	.3	.8	.4
12.....	59.7	57.4	63.5	52.2	56.6	.5	.5	.3	.9	.5

Expectation of Life and Mortality Rates (Contd.)

Age, years	Expectation of Life in Years					Mortality Rate per 1,000				
	Total Persons	White		Nonwhite		Total Persons	White		Nonwhite	
		Male	Female	Male	Female		Male	Female	Male	Female
13.....	58.7	56.4	62.5	51.2	55.6	.5	.7	.3	1.0	.5
14.....	57.7	55.5	61.5	50.3	54.7	.6	.8	.4	1.1	.6
15.....	56.8	54.5	60.5	49.3	53.7	.8	1.0	.5	1.3	.7
16.....	55.8	53.6	59.6	48.4	52.7	.9	1.2	.5	1.4	.9
17.....	54.9	52.6	58.6	47.4	51.8	1.0	1.4	.6	1.6	1.0
18.....	53.9	51.7	57.6	46.5	50.8	1.1	1.5	.6	1.9	1.1
19.....	53.0	50.8	56.7	45.6	49.9	1.2	1.6	.6	2.1	1.2
20.....	52.0	49.9	55.7	44.7	48.9	1.2	1.7	.6	2.4	1.3
21.....	51.1	48.9	54.7	43.8	48.0	1.3	1.8	.6	2.6	1.5
22.....	50.2	48.0	53.8	42.9	47.1	1.3	1.8	.6	2.9	1.6
23.....	49.2	47.1	52.8	42.0	46.2	1.3	1.8	.6	3.1	1.7
24.....	48.3	46.2	51.8	41.2	45.2	1.3	1.7	.7	3.2	1.8
25.....	47.4	45.3	50.9	40.3	44.3	1.3	1.6	.7	3.4	2.0
26.....	46.4	44.3	49.9	39.4	43.4	1.3	1.5	.7	3.6	2.1
27.....	45.5	43.4	48.9	38.6	42.5	1.3	1.5	.8	3.7	2.3
28.....	44.5	42.5	48.0	37.7	41.6	1.4	1.5	.8	3.9	2.4
29.....	43.6	41.5	47.0	36.9	40.7	1.4	1.5	.9	4.0	2.6
30.....	42.7	40.6	46.1	36.0	39.8	1.5	1.6	.9	4.2	2.8
31.....	41.7	39.7	45.1	35.2	38.9	1.6	1.7	1.0	4.4	3.0
32.....	40.8	38.7	44.1	34.3	38.0	1.7	1.8	1.0	4.6	3.3
33.....	39.9	37.8	43.2	33.5	37.2	1.8	1.9	1.1	4.9	3.7
34.....	38.9	36.9	42.2	32.6	36.3	1.9	2.0	1.2	5.3	4.1
35.....	38.0	35.9	41.3	31.8	35.4	2.1	2.2	1.3	5.8	4.5
36.....	37.1	35.0	40.3	31.0	34.6	2.2	2.4	1.4	6.2	5.0
37.....	36.2	34.1	39.4	30.2	33.8	2.4	2.6	1.5	6.7	5.4
38.....	35.3	33.2	38.5	29.4	32.9	2.6	2.8	1.7	7.1	5.6
39.....	34.3	32.3	37.5	28.6	32.1	2.9	3.1	1.8	7.4	5.8
40.....	33.4	31.4	36.6	27.8	31.3	3.1	3.5	2.0	7.8	5.9
41.....	32.5	30.5	35.7	27.0	30.5	3.4	3.9	2.2	8.3	6.2
42.....	31.7	29.6	34.7	26.2	29.7	3.8	4.3	2.4	8.9	6.5
43.....	30.8	28.7	33.8	25.5	28.9	4.1	4.7	2.6	9.6	7.1
44.....	29.9	27.9	32.9	24.7	28.1	4.5	5.2	2.8	10.4	7.8
45.....	29.0	27.0	32.0	24.0	27.3	4.9	5.7	3.1	11.3	8.6
46.....	28.2	26.2	31.1	23.2	26.5	5.4	6.2	3.4	12.3	9.4
47.....	27.3	25.3	30.2	22.5	25.8	5.9	6.9	3.7	13.3	10.2
48.....	26.5	24.5	29.3	21.8	25.0	6.5	7.7	4.0	14.3	11.1
49.....	25.7	23.7	28.4	21.1	24.3	7.1	8.6	4.4	15.3	12.0
50.....	24.8	22.9	27.5	20.4	23.6	7.9	9.6	4.8	16.3	12.9
51.....	24.0	22.1	26.7	19.8	22.9	8.6	10.6	5.2	17.5	13.9
52.....	23.2	21.3	25.8	19.1	22.2	9.4	11.7	5.7	18.9	15.0
53.....	22.4	20.6	25.0	18.5	21.5	10.2	12.7	6.1	20.4	16.3
54.....	21.7	19.8	24.1	17.8	20.9	11.1	13.8	6.6	22.2	17.8
55.....	20.9	19.1	23.3	17.2	20.3	12.0	14.9	7.2	24.1	19.4
56.....	20.2	18.4	22.4	16.7	19.7	12.9	16.1	7.8	26.1	21.1
57.....	19.4	17.7	21.6	16.1	19.1	14.0	17.6	8.5	28.2	22.6
58.....	18.7	17.0	20.8	15.5	18.5	15.3	19.3	9.3	30.5	23.8
59.....	18.0	16.3	20.0	15.0	17.9	16.7	21.1	10.3	32.9	24.9
60.....	17.3	15.7	19.2	14.5	17.4	18.1	23.1	11.3	35.3	25.8
61.....	16.6	15.0	18.4	14.0	16.8	19.7	25.3	12.4	37.9	26.9
62.....	15.9	14.4	17.6	13.6	16.3	21.5	27.6	13.8	41.0	28.7
63.....	15.2	13.8	16.9	13.1	15.8	23.7	30.2	15.5	44.7	31.8
64.....	14.6	13.2	16.1	12.7	15.3	26.2	33.1	17.5	49.0	35.8
65.....	14.0	12.7	15.4	12.4	14.8	29.0	36.2	19.6	53.9	40.5
66.....	13.4	12.1	14.7	*	*	31.8	39.5	21.9	*	*
67.....	12.8	11.6	14.0	*	*	34.7	42.8	24.3	*	*
68.....	12.2	11.1	13.3	*	*	37.4	46.0	26.6	*	*
69.....	11.7	10.6	12.7	*	*	40.0	49.2	29.1	*	*

* Not shown because of deficiencies in basic data.

Expectation of Life in the United States, 1850-1957

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various publications of the National Office of Vital Statistics and the Bureau of the Census.

Calendar period	Age								
	0	10	20	30	40	50	60	70	80
White Males									
1850*	38.3	48.0	40.1	34.0	27.9	21.6	15.6	10.2	5.9
1890*	42.50	48.45	40.66	34.05	27.37	20.72	14.73	9.35	5.40
1900-1902†	48.23	50.59	42.19	34.88	27.74	20.76	14.35	9.03	5.10
1901-1910†	49.32	50.86	42.39	34.80	27.55	20.59	14.17	8.96	5.07
1909-1911†	50.23	51.32	42.71	34.87	27.43	20.39	13.98	8.83	5.09
1919-1921‡	56.34	54.15	45.60	37.65	29.86	22.22	15.25	9.51	5.47
1920-1929‡	57.85	54.65	45.84	37.51	29.35	21.65	14.75	9.17	5.26
1929-1931	59.12	54.96	46.02	37.54	29.22	21.51	14.72	9.20	5.26
1930-1939	60.62	55.86	46.77	38.06	29.57	21.71	14.86	9.29	5.30
1939-1941	62.81	57.03	47.76	38.80	30.03	21.96	15.05	9.42	5.38
1949-1951	66.31	58.98	49.52	40.29	31.17	22.83	15.76	10.07	5.88
1957	67.1	59.4	49.9	40.6	31.4	22.9	15.7	10.1	5.9
White Females									
1850*	40.5	47.2	40.2	35.4	29.8	23.5	17.0	11.3	6.4
1890*	44.46	49.62	42.03	35.36	28.76	22.09	15.70	10.15	5.75
1900-1902†	51.08	52.15	43.77	36.42	29.17	21.89	15.23	9.59	5.50
1901-1910†	52.54	52.89	44.39	36.75	29.28	21.86	15.09	9.52	5.43
1909-1911†	53.62	53.57	44.88	36.96	29.26	21.74	14.92	9.38	5.35
1919-1921‡	58.53	55.17	46.46	38.72	30.94	23.12	15.93	9.94	5.70
1920-1929‡	60.62	56.41	47.46	39.20	30.97	22.97	15.70	9.71	5.46
1929-1931	62.67	57.65	48.52	39.99	31.52	23.41	16.05	9.98	5.63
1930-1939	64.52	58.98	49.71	40.90	32.24	23.96	16.44	10.19	5.76
1939-1941	67.29	60.85	51.38	42.21	33.25	24.72	17.00	10.50	5.88
1949-1951	72.03	64.26	54.56	45.00	35.64	26.76	18.64	11.68	6.59
1957	73.5	65.4	55.7	46.1	36.6	27.5	19.2	12.1	6.5
Nonwhite Males‡									
1900-1902†	32.54	41.90	35.11	29.25	23.12	17.34	12.62	8.33	5.12
1901-1910†	32.57	40.73	33.78	27.97	22.23	16.64	11.87	8.29	5.43
1909-1911†	34.05	40.65	33.46	27.33	21.57	16.21	11.67	8.00	5.53
1919-1921‡	47.14	45.99	38.36	32.51	26.53	20.47	14.74	9.58	5.83
1920-1929‡	46.90	44.86	36.76	30.65	24.55	18.83	13.66	9.12	5.54
1929-1931	47.55	44.27	35.95	29.45	23.36	17.92	13.15	8.78	5.42
1930-1939	50.06	46.56	38.05	31.11	24.65	18.98	14.13	9.53	6.01
1939-1941	52.26	48.34	39.52	32.05	25.06	19.06	14.37	10.11	6.58
1949-1951	58.91	52.96	43.73	35.31	27.29	20.25	14.91	10.74	7.07
1957	60.3	54.1	44.7	36.0	27.8	20.4	14.5	11.1	8.6
Nonwhite Females‡									
1900-1902†	35.04	43.02	36.89	30.70	24.37	18.67	13.60	9.62	6.48
1901-1910†	35.65	42.52	36.17	30.09	23.81	18.08	13.17	9.52	6.50
1909-1911†	37.67	42.84	36.14	29.61	23.34	17.65	12.78	9.22	6.05
1919-1921‡	46.92	44.54	37.15	31.48	25.60	19.76	14.69	10.25	6.58
1920-1929‡	47.95	44.86	36.98	30.93	24.67	18.85	14.04	10.01	6.49
1929-1931	49.51	45.33	37.22	30.67	24.30	18.60	14.22	10.38	6.90
1930-1939	52.62	48.29	39.90	32.88	26.11	20.09	15.28	10.88	7.18
1939-1941	55.56	50.75	42.04	34.40	27.19	20.95	16.10	11.82	8.02
1949-1951	62.70	56.17	46.77	38.02	29.82	22.67	16.95	12.29	8.15
1957	65.2	58.6	48.9	39.8	31.3	23.6	17.4	13.2	9.6

* Massachusetts only; white and nonwhite combined, the latter being about one percent of the total. † Original Death Registration States. ‡ Death Registration States of 1920. § Data for periods 1900-1902 to 1929-1951 and 1939-1941 relate to Negroes only.

Expectation of Life by Age and Sex; Selected Countries

Source: Statistical Office of the United Nations.

Country	Period	Average future lifetime in years at stated age											
		Males						Females					
		0	1	10	20	40	60	0	1	10	20	40	60
North America													
United States													
White	1956	67.3	68.2	59.6	50.1	31.6	15.9	73.7	74.2	65.6	55.9	36.7	19.3
Nonwhite	1956	61.1	63.1	54.8	45.4	28.5	15.2	65.9	67.4	59.1	49.4	31.8	17.9
Canada	1950-52	66.3	68.3	60.2	50.8	32.5	16.5	70.8	72.3	64.0	54.4	35.6	18.6
Mexico	1940	37.9	44.4	45.4	37.6	24.8	13.4	39.8	46.2	47.9	40.0	26.6	13.5
Puerto Rico ^a	1939-41	45.1	50.4	48.6	40.1	30.1	17.0	46.9	51.5	50.0	41.8	32.4	19.3
South America													
Chile	1952	49.8	56.8	51.4	42.7	27.3	14.0	53.9	60.6	55.7	47.1	31.3	16.4
Venezuela	1941-42	45.8	51.2	48.2	39.9	26.2	14.0	47.6	52.5	49.7	41.6	28.5	15.8
Europe													
Austria	1949-51	61.9	65.9	58.0	48.7	30.7	15.1	67.0	70.1	62.2	52.6	34.2	17.3
Belgium	1946-49	62.0	65.3	57.4	48.0	30.6	15.5	67.3	69.7	61.7	52.3	34.2	17.5
Czechoslovakia	1929-32	51.9	59.9	54.0	45.3	29.0	14.4	55.2	62.0	56.1	47.4	31.0	15.4
Denmark	1951-55	69.9	71.2	62.7	53.1	34.4	17.5	72.6	73.4	64.8	55.0	35.9	18.4
England and Wales	1956	67.8	68.6	60.0	50.4	31.4	15.0	73.3	73.8	65.2	55.4	36.2	18.7
Finland	1951-55	63.4	64.7	56.5	47.0	29.2	14.1	69.8	70.9	62.5	52.8	34.2	16.9
France	1952-56	65.0	66.8	58.5	48.9	30.7	15.2	71.2	72.4	64.1	54.4	35.6	18.5
Germany (Fed. Rep.) ^a	1949-51	64.6	67.8	59.8	50.3	32.3	16.2	68.5	71.0	62.8	53.2	34.7	17.5
Greece ^a	1926-30	49.1	53.2	52.4	44.3	29.8	16.0	50.9	55.1	54.5	46.4	32.4	17.5
Hungary	1955 ¹	64.7	68.3	60.1	50.6	32.3	15.9	68.7	71.4	63.2	53.5	34.7	17.5
Iceland	1941-50	66.1	67.4	59.5	50.5	34.3	18.2	70.3	71.3	63.2	54.0	36.5	19.6
Ireland	1950-52	64.5	66.9	58.8	49.3	31.3	15.4	67.1	68.8	60.6	51.2	33.3	16.8
Italy	1950-53	63.8	67.3	59.8	50.4	32.1	16.0	67.3	70.4	62.9	53.3	34.7	17.5
Netherlands	1953-55	71.0	71.8	63.4	53.7	34.8	17.8	73.9	74.3	65.7	56.0	36.7	18.9
Norway	1951-55	71.1	72.0	63.7	54.1	35.5	18.5	74.7	75.2	66.7	57.0	37.8	19.9
Poland	1952-53	58.6	64.3	56.8	47.6	30.1	14.7	64.2	69.0	61.4	52.0	34.0	17.3
Portugal	1955-56	58.8	63.9	57.9	48.5	30.5	14.8	63.8	68.6	62.8	53.3	34.8	17.6
Scotland	1955-57	65.9	67.1	58.7	49.0	30.3	14.5	71.1	71.9	63.3	53.6	34.6	17.5
Spain	1950	58.8	63.1	56.5	47.5	36.7	15.2	63.5	67.6	61.2	52.0	34.6	17.7
Sweden	1951-55	70.5	71.1	62.7	53.1	34.4	17.4	73.4	73.7	65.1	55.4	36.2	18.6
Switzerland	1948-53	66.4	67.8	59.6	50.2	31.9	15.7	70.9	71.1	63.6	53.9	35.0	17.8
U.S.S.R. (total)	1955-56	63	*	*	*	*	*	69	*	*	*	*	*
Asia													
China (Taiwan)	1936-41	41.1	47.6	45.6	37.2	22.7	11.3	45.7	51.5	50.8	42.4	27.7	14.2
India ^a	1941-50	32.5	39.0	39.0	33.0	20.5	10.1	31.7	37.3	39.5	32.9	21.1	11.3
Israel (Jews)	1957	68.0	69.6	61.3	52.0	33.4	16.4	71.4	72.6	64.4	54.7	35.6	18.1
Japan ^b	1957	63.2	65.0	57.3	47.9	30.0	14.1	67.6	68.8	61.0	51.5	33.4	16.6
Korea	1938	47.2	51.1	49.9	41.6	26.2	12.8	50.6	54.5	53.2	45.1	30.0	14.8
Thailand	1947-48	48.7	52.0	47.9	39.8	25.6	12.7	51.9	55.2	50.9	42.7	28.4	14.2
Africa													
Egypt	1936-38	35.7	42.1	46.9	39.8	26.1	13.3	41.5	48.1	54.5	46.1	30.8	16.3
U. of So. Africa (Europeans)	1945-47	63.8	65.5	57.7	48.4	30.4	15.3	68.3	69.6	61.7	52.3	34.1	18.0
Oceania													
Australia ^a	1953-55	67.1	67.9	59.5	50.1	31.7	15.5	72.8	73.2	64.8	55.1	36.0	18.8
New Zealand (Europeans)	1950-52	68.3	69.0	60.6	51.2	32.7	16.2	72.4	72.9	64.4	54.6	35.6	18.5

* Not available. ¹ Provisional. ² Figures in 40 and 60 columns are for ages 35 and 55 respectively. ³ Excluding Saar. ⁴ Excluding Dodecanese. ⁵ Japanese nationals only. ⁶ Data are for states of Uttar Pradesh, Bihar, Orissa, Assam, Manipur, Madras, Mysore, Travancore-Cochin, Coorg, Bombay, Saurashtra, Kutch, Madhya Pradesh, Madhya Bharat, Hyderabad, Bhopal and Vinhya Pradesh, comprising a population of 294,749,000 in 1951. ⁷ Excluding full-blooded aborigines, estimated at 46,638 in June 1947.

CRIME

Distribution of Arrests by Sex, 1958

Source: Federal Bureau of Investigation.

(Data in this table are from reports furnished the FBI by 1,586 cities over 2,500 in population. This represents a total population of 52,329,497 based on the 1950 census.)

Offense charged	Males	Per cent	Females	Per cent	Total	Per cent
Criminal homicide:						
Murder and nonnegligent manslaughter	1,844	.1	459	.2	2,303	.1
Manslaughter by negligence	1,055	.1	111	*	1,166	*
Robbery	14,296	.7	672	.3	14,968	.6
Aggravated assault	21,769	1.0	4,055	1.6	25,824	1.1
Other assaults	74,562	3.6	7,892	3.2	82,454	3.5
Burglary—breaking or entering	59,572	2.8	1,473	.6	61,045	2.6
Larceny—steal	101,346	4.8	16,979	6.8	118,325	5.1
Auto theft	29,282	1.4	958	.4	30,240	1.3
Embezzlement and fraud	16,709	.8	2,780	1.1	19,489	.8
Stolen property: buying, receiving, etc.	5,078	.2	426	.2	5,504	.2
Forgery and counterfeiting	9,612	.5	1,705	.7	11,317	.5
Forcible rape	3,680	.2	...	...	3,680	.2
Prostitution and commercialized vice	5,412	.3	12,070	4.9	17,482	.7
Other sex offenses (includes statutory rape)	19,595	.9	4,922	2.0	24,517	1.0
Narcotic drug laws	8,249	.4	1,614	.6	9,863	.4
Weapons; carrying, possessing, etc.	17,675	.8	936	.4	18,611	.8
Offenses against family and children	21,671	1.0	2,030	.8	23,701	1.0
Liquor laws	44,654	2.1	8,053	3.2	52,707	2.3
Driving while intoxicated	96,782	4.6	5,437	2.2	102,219	4.4
Disorderly conduct	239,582	11.5	42,415	17.1	281,997	12.1
Drunkenness	841,440	40.2	67,517	27.2	908,957	38.8
Vagrancy	81,637	3.9	6,714	2.7	88,351	3.8
Gambling	55,459	2.7	6,087	2.5	61,546	2.6
Suspicion	86,730	4.1	10,010	4.0	96,740	4.1
All other offenses	233,874	11.2	43,124	17.4	276,998	11.8
TOTAL ARRESTS, 1958	2,091,565	100.0	248,439	100.0	2,340,004	100.0

* Less than one-tenth of one per cent.

Arrests by Age Groups, 1958*

Source: Federal Bureau of Investigation.

Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests
Under 15	106,892	18	63,109	22	56,691	30-34	279,461	50 & over	387,049
15	52,776	19	58,424	23	54,576	35-39	275,803	Not known	384
16	62,240	20	54,267	24	55,610	40-44	239,538	TOTAL	2,340,004
17	62,307	21	58,762	25-29	260,117	45-49	211,998		

* Data from same sources as table above: 1,586 cities over 2,500.

Crime Index Trends, 1957-58

Source: Federal Bureau of Investigation.

Crime index classification	Estimated number of offenses		Change	
	1957	1958	Number	Per cent
Murder	8,027	8,182	+155	+1.9
Forcible rape	12,886	14,561	+1,675	+13.0
Robbery	66,843	75,347	+8,504	+12.7
Aggravated assault	110,672	113,530	+2,858	+2.6
Burglary	603,707	679,787	+76,080	+12.6
Larceny over \$50	354,972	391,550	+36,578	+10.3
Auto theft	265,178	270,965	+5,787	+2.2
TOTAL	1,422,285	1,553,922	+131,637	+9.3

NOTE: Estimated crime totals for the U. S. appearing above are not comparable to such totals published in prior years.

Sentenced Federal Prisoners Received from Courts, 1945-1958

Fiscal years ending June 30

Source: Federal Bureau of Prisons.

Offense	1945	1948	1950	1952	1954	1956	1957	1958
Counterfeiting.....	47	64	260	154	88	54	80	70
Drug laws: Marihuana.....	454	588	878	654	509	325	414	303
Narcotics.....	680	855	1,151	1,278	1,366	1,189	1,273	1,264
Embezzlement and fraud.....	340	531	609	558	445	453	515	540
Forgery.....	626	954	1,274	1,099	1,484	1,572	1,507	1,545
Immigration laws.....	3,996	3,200	3,463	4,548	7,277	1,771	1,556	1,654
Income tax.....	15	103	164	184	203	241	251	189
Juvenile delinquency.....	911	677	658	695	829	825	963	953
Kidnaping.....	20	36	41	42	41	19	34	26
Liquor laws.....	2,988	1,838	2,304	2,247	2,143	2,183	2,376	2,378
Robbery.....	45	68	92	120	193	212	211	242
Theft from interstate commerce.....	475	430	270	307	320	318	310	292
Transportation, etc., of stolen motor vehicle.....	1,072	2,612	2,486	2,605	2,838	2,835	3,020	3,295
White-slave traffic.....	209	221	185	173	242	206	195	134
Govt. reservation, D. C., high seas and terr. cases	986	1,069	1,145	1,369	1,487	1,365	1,592	1,667
Other.....	1,748	1,868	2,104	1,961	1,851	1,882	1,941	1,914
National-security offenses:								
Selective Service Acts.....	2,613	236	136	281	342	136	194	197
Other national-defense and security laws.....	2,150	319	130	157	167	132	108	104
Military court-martial cases: Army.....	1,793	851	606	416	639	952	166	82
Navy.....	32	267	107	48	33	30	27	8
TOTAL ALL OFFENSES.....	21,200	16,787	18,063	18,896	22,497	16,700	16,733	16,857

Methods of Execution in the United States

Source: Information Please Almanac questionnaires to the states.

State	Method	State	Method
Alabama	Electrocution	New Hampshire	Hanging
Alaska	No death penalty	New Jersey	Electrocution
Arizona	Lethal gas	New Mexico	Lethal gas
Arkansas	Electrocution	New York	Electrocution
California	Lethal gas	North Carolina	Lethal gas
Colorado	Lethal gas	North Dakota	No death penalty
Connecticut	Electrocution	Ohio	Electrocution
Delaware	No death penalty	Oklahoma	Lethal gas ¹
D. C.	Electrocution	Oregon	Lethal gas
Florida	Electrocution	Pennsylvania	Electrocution
Georgia	Electrocution	Rhode Island	No death penalty ²
Hawaii	No death penalty	South Carolina	Electrocution
Idaho	Hanging	South Dakota	Electrocution
Illinois	Electrocution	Tennessee	Electrocution
Indiana	Electrocution	Texas	Electrocution
Iowa	Hanging	Utah	Hanging
Kansas	Hanging		or shooting ³
Kentucky	Electrocution	Vermont	Electrocution
Louisiana	Electrocution	Virginia	Electrocution
Maine	No death penalty	Washington	Hanging
Maryland	Lethal gas	West Virginia	Electrocution
Massachusetts	Electrocution	Wisconsin	No death penalty
Michigan	No death penalty	Wyoming	Lethal gas
Minnesota	No death penalty	U. S. (Fed. Gov't.) ..	(*)
Mississippi	Lethal gas	American Samoa	Hanging
Missouri	Lethal gas	Canal Zone	Hanging
Montana	Hanging	Guam	Hanging
Nebraska	Electrocution	Puerto Rico	No death penalty
Nevada	Lethal gas	Virgin Islands	No death penalty

¹ Electrocution until gas chamber is provided. ² However, a person who commits murder while under sentence of imprisonment for life shall be hanged. ³ Condemned man has choice. ⁴ Method shall be that used by state in which sentence is imposed. If state does not have death penalty, Federal judge shall prescribe method for carrying out death sentence. NOTE: Method shown with each state is maximum penalty for murder and certain other crimes. In most states having capital punishment, jury or judge can specify whether sentence shall be death or life imprisonment.

EDUCATION

Elementary and Secondary Public School Statistics, 1957-58

Source: Information Please Almanac Questionnaire.

NOTE: The average yearly expenditure is based on average daily attendance.

State	Elementary Kindergarten-Grade 8			Secondary Grades 9-12			Average yearly expenditure per pupil	All teachers	
	No. schools	No. pupils	No. teachers	No. schools	No. pupils	No. teachers		Minimum salary	Maximum salary
Alabama.....	(1)	466,883 ²	14,288 ^{2,3}	(1)	291,331 ⁴	11,321 ⁵	\$171.76	\$3,225.00 ⁶	\$3,564.00 ⁶
Alaska.....	131	34,959	1,187	34	6,136	346	520.18 ⁷	4,500.00	(⁸)
Arizona.....	489	205,522	7,081	85	56,698	2,356	353.53	(⁹)	(⁹)
Arkansas.....	1,182	258,072 ¹⁰	7,906 ¹⁰	587	161,939	6,261	212.00	2,954.00 ⁶	3,294.00 ⁶
California ¹¹	4,507	2,291,485	65,915	829 ¹²	702,202	38,093	372.91 ¹³	4,200.00	9,600.00
Colorado.....	1,049	256,706	9,779	370	72,007	4,101	341.83	2,925.00	7,200.00
Connecticut.....	759	325,848	10,367	157 ¹²	96,485	5,939 ¹²	333.81	3,200.00	9,000.00
Delaware.....	141	43,794 ¹⁴	1,704	45	27,742 ⁴	1,341	436.00	3,000.00	9,480.00
D. C.....	127 ²	72,766 ²	2,217 ²	39 ⁴	37,275 ⁴	1,780 ⁴	389.62	4,500.00	7,300.00
Florida.....	1,250	559,118 ²	17,433 ²	485	339,902 ⁴	12,695 ⁴	291.78 ¹²	3,200.00	6,900.00
Georgia.....	1,569	696,419	20,053	550	263,992	10,386	204.87	2,000.00	3,800.00
Hawaii.....	187	104,029	3,538	61	26,129	894	265.67	3,300.00	5,400.00
Idaho.....	460	113,776	3,019	188 ¹²	40,335	2,236 ¹²	260.00	2,200.00	6,570.00
Illinois.....	1,145 ¹⁵	1,294,713	43,967	276 ¹⁵	411,154	19,022	388.75	4,130.09 ¹⁶	4,170.56 ²⁸
Indiana.....	1,500 ¹⁶	661,393	21,373	809	224,448	10,337	308.28 ¹⁵	2,000.00	8,514.00
Iowa.....	2,487	435,437	14,682	858 ¹²	137,715	9,070	323.37 ¹⁷	(⁹)	(⁹)
Kansas ¹¹	2,145	300,193	(¹⁸)	572	108,488	(¹⁸)	344.60 ¹⁴	3,844.00 ⁶	4,485.00 ¹⁹
Kentucky.....	2,970	489,070	14,792	465 ²⁰	133,600	7,054	198.55	1,400.00	(⁹)
Louisiana.....	796	502,308	14,391	601	139,541	8,251	318.04	.....	4,578.37 ²¹
Maine.....	1,080	140,965	4,975	192	45,353	2,098	239.81	3,352.00 ⁶	4,110.00 ⁶
Maryland.....	801 ²²	331,619 ²	11,411 ²	252 ²⁴	200,502 ⁴	9,150 ⁴	335.73	3,200.00	8,150.00
Massachusetts.....	1,770 ²³	541,735	20,375	331 ²⁴	267,365	12,982	336.25	3,600.00	9,400.00
Michigan ¹¹	4,421 ²⁵	1,205,923	35,208	855 ²⁵	369,739	22,936	316.57 ²⁵	(⁹)	(⁹)
Minnesota.....	2,915	384,290 ²⁶	14,528	670	244,581 ²⁶	12,770	364.00	3,000.00	6,600.00
Mississippi.....	1,898	445,221	10,429	645	104,709	6,063	158.82	2,419.63 ⁶	2,903.02 ⁶
Missouri.....	1,949	591,282	19,913	553 ²⁷	187,225	7,970	311.86 ⁷	3,894.00 ⁶	4,369.00 ⁶
Montana.....	1,241 ²	94,387 ²	4,435 ²	187 ⁴	39,273 ⁴	2,063 ⁴	386.00	2,709.00	6,300.00
Nebraska ²⁸	4,151	195,623	9,035	480	76,289	4,301	283.70	3,539.00 ¹⁸	4,308.00 ¹⁸
Nevada.....	173 ²⁹	49,346	1,479	41 ²⁹	15,405	621	376.90	4,840.00 ⁶	5,145.00 ⁶
New Hampshire.....	420	74,046	2,601	81	23,432	1,072	308.55 ³⁰	2,400.00	7,760.00
New Jersey ²⁸	1,550	679,000	24,000	300	202,000	13,600	345.99	3,000.00	(⁹)
New Mexico.....	581	162,944	5,648	111	46,795	1,795	371.59	3,500.00	6,400.00
New York.....	3,223 ³¹	1,632,792	60,958	714 ³²	1,026,077	51,525	575.00	5,843.00 ⁶	5,973.00 ⁶
North Carolina.....	2,029 ³⁰	815,177 ³⁰	25,748 ³⁰	910	245,010	9,406	203.09	1,440.00 ³²	4,338.00
North Dakota.....	2,356	95,731	4,805	358	33,219	1,990	331.53	2,000.00 ¹⁶	6,000.00 ¹⁶
Ohio.....	3,000	1,214,213	38,887	1,141 ³²	549,624 ³²	25,075 ³²	322.88	2,800.00 ¹⁶	5,100.00
Oklahoma.....	1,953	336,149	8,188	633	136,388	8,024 ³²	270.89	3,000.00	4,908.00
Oregon.....	1,088	283,504	9,854	223	95,950	3,811	(⁹)	3,200.00	8,500.00
Pennsylvania.....	4,520	1,168,084 ³³	42,272	998	702,618 ³³	33,219	350.83 ¹⁶	3,400.00 ³⁴	5,800.00 ³⁴
Rhode Island.....	287 ³	93,574	3,952	67 ³²	31,112	1,670	350.00	3,200.00	7,000.00 ⁺
South Carolina.....	1,025	398,306	12,016	396	185,977	7,441	206.00	1,107.00	(⁹)
South Dakota.....	2,702	33,062	2,704	476	35,213	2,203	328.24	1,670.00	(⁹)
Tennessee.....	2,785	606,648	20,221 ¹⁶	502	174,284	7,043 ¹⁶	194.09	.....	3,427.45 ³⁵
Texas.....	4,077	1,470,605	41,910	1,792	425,704	28,817	298.74 ¹⁵	3,204.00	4,833.00
Utah.....	392	161,684	3,983 ³²	148 ³²	53,128	3,064 ³²	228.48	.....	4,561.77 ³⁵
Vermont.....	512	53,098	1,962	83	20,111	849	297.81	2,700.00	(⁹)
Virginia.....	2,054	575,002	19,402	474	225,482	11,206	228.51	2,550.00	5,319.00 ³⁶
Washington.....	1,131	379,636	13,216	424	189,540	7,732	354.75	(⁹)	(⁹)
West Virginia.....	2,726	299,437	10,340	371	164,960	6,575	218.02	1,935.00	5,700.00
Wisconsin.....	4,731	464,156	17,883	440	174,289	8,408	339.33	2,016.00	8,500.00
Wyoming.....	491	57,103	2,364	81	17,575	1,020	439.01	2,400.00	8,000.00

¹ Total schools in state: 2,501. ² Kindergarten through Grade 6. ³ Teaching positions. ⁴ Grades 7 through 12. ⁵ Average annual salary for elementary teachers. ⁶ Average annual salary for secondary teachers. ⁷ Current operating cost. ⁸ No set maximum. ⁹ Data not available. ¹⁰ Grades 1 through 8. ¹¹ 1958-59 except as indicated. ¹² Junior and senior high schools. ¹³ 1957-58. ¹⁴ Grades 1 through 6. ¹⁵ School districts; in addition there are 349 unit districts. ¹⁶ Estimated. ¹⁷ Elementary and secondary in high school districts; rural, \$339.81. ¹⁸ Combined elementary and secondary teachers: 20,513. ¹⁹ Average for high school teachers; junior high school teachers, \$4,775. ²⁰ Including 302 combined schools (Grades 1 through 12). ²¹ Average annual salary of all principals and teachers. ²² Includes 76 combined elementary and secondary schools. ²³ School buildings. ²⁴ There are also 118 consolidated units. ²⁵ Operating and capital outlay for 1956-57. ²⁶ Includes 7th and 8th grade pupils in junior and junior-senior secondary schools. ²⁷ School districts. ²⁸ Data are for 1956-57 unless otherwise indicated. ²⁹ Including 17 combined schools. ³⁰ Preliminary. ³¹ School buildings; in addition there are 726 combined elementary and secondary school buildings. ³² For nonstandard certificate; \$2,798 for those holding Class A (college graduate). ³³ Includes Grades 7 and 8 when designated as part of the division. ³⁴ 1958-59. ³⁵ Average for all teachers. ³⁶ Maximum average.

State Compulsory School Attendance Laws

Source: U. S. Office of Education.

State	Enactment ¹	Age limits	State	Enactment ¹	Age limits
Alabama	1915	7-16	Montana	1883	8-16
Alaska	1929	6-16	Nebraska	1887	7-16
Arizona	1899	8-16	Nevada	1873	7-17
Arkansas	1909	7-16	New Hampshire	1871	6-16
California	1874	8-16	New Jersey	1875	7-16
Colorado	1889	8-16	New Mexico	1891	6-17
Connecticut	1872	7-16	New York	1874	7-16
Delaware	1907	7-16	North Carolina	1907	7-16
D. C.	1864	7-16	North Dakota	1883	7-17
Florida	1915	7-16	Ohio	1877	6-18
Georgia	1916	7-16	Oklahoma	1907	7-18
Hawaii	1896	6-15	Oregon	1889	7-18
Idaho	1887	7-16	Pennsylvania	1895	8-17
Illinois	1883	7-16	Rhode Island	1883	7-16
Indiana	1897	7-16	South Carolina ³	.....	.....
Iowa	1902	7-16	South Dakota	1883	7-16
Kansas	1874	7-16	Tennessee	1905	7-17
Kentucky	1896	7-16	Texas	1915 ⁴	7-16
Louisiana	1910	7-16	Utah	1890	6-18
Maine	1875	7-15	Vermont	1867	7-16
Maryland	1902	7-16	Virginia	1908	7-16
Massachusetts	1852	7-16	Washington	1871	8-16
Michigan	1871	6-16	West Virginia	1897	7-16
Minnesota	1885	7-16	Wisconsin	1879	7-16
Mississippi ²	.....	.....	Wyoming	1876	7-16
Missouri	1905	7-16			

¹ Date of enactment of 1st compulsory school attendance law. ² Mississippi repealed its compulsory attendance law in 1956. ³ South Carolina repealed its compulsory attendance law in 1955. ⁴ A compulsory school attendance law was contained in a law of 1873 establishing free public schools. However, the provision was omitted in superseding legislation passed in 1876.

Enrollment in Full-time Day Schools, 1909-56

Source: U. S. Office of Education.

Level of instruction, by type of school	1909-1910	1919-1920	1929-1930	1939-1940	1949-1950	1955-1956
Kindergarten: Public ¹	293,970 ²	481,266	723,443	594,647	1,034,203	1,564,396
Nonpublic ¹	52,219 ²	29,683	54,456	57,341	133,000	263,000
Residential schools for exceptional children.....	(³)	(³)	5,164 ⁴	5,777	4,459 ⁵	(³)
Other ⁶	(³)	(³)	3,400	3,144	3,650	10,208
Total kindergarten.....	346,189	510,949	786,463	660,909	1,175,312	1,837,604
Grades 1-8 inclusive: Public ¹	16,604,821	18,897,661	20,555,150	18,237,451	18,352,603	22,725,861
Nonpublic ¹	1,506,218	1,455,878	2,255,430	2,095,938	2,574,777 ⁷	3,623,350 ⁷
Residential schools for exceptional children.....	71,307	99,234 ⁸	124,153 ⁴	55,954	48,894 ⁵	61,700 ⁹
Other ⁶	(³)	(³)	18,644	76,769	55,655	83,570
Total grades 1-8.....	18,182,346	20,452,773	22,953,377	20,466,112	21,031,929	26,494,491
Total kindergarten through grade 8.....	18,528,535	20,963,722	23,739,840	21,127,021	22,207,241	28,332,095
Grades 9-12 ¹⁰ : Public high schools ¹	915,061	2,200,389	4,399,422	6,601,444	5,724,621	6,872,586
Nonpublic high schools ¹	117,400	213,920	341,158	457,768	672,362 ⁷	823,000 ⁷
Residential schools for exceptional children.....	4,005	4,500 ⁸	4,388 ⁴	9,727	9,784 ⁵	18,400 ⁷
Other ⁶	78,932	81,367	66,832	61,040	46,242	60,965 ⁷
Total grades 9-12 ¹⁰	1,115,398	2,500,176	4,811,800	7,129,979	6,453,009	7,774,951
Total kindergarten through grade 12 ¹⁰	19,643,933	23,463,898	28,551,640	28,257,000	28,660,250	36,107,046
Higher education: Publicly controlled.....	166,560	315,382	532,647	796,531	1,354,902	1,687,000 ⁷
Privately controlled.....	188,655	282,498	568,090	697,672	1,304,119	1,309,000 ⁷
Total higher education.....	355,215	597,880	1,100,737	1,494,203	2,659,021	2,996,000 ⁷
Total all levels ¹¹	19,999,148	24,061,778	29,652,377	29,751,203	31,319,271	39,103,046

¹ Does not include subcollegiate departments of institutions of higher education, residential schools for exceptional children, or Federal schools. ² 1911-12. ³ Not available. ⁴ 1925-27. ⁵ 1945-46. ⁶ Subcollegiate departments of institutions of higher education, and Federal schools. ⁷ Estimated. ⁸ 1917-18. ⁹ Estimated; includes enrollment in kindergarten. ¹⁰ And postgraduate. ¹¹ Does not include schools of nursing not affiliated with institutions of higher education.

Statistics of State School Systems, 1947-56

Source: U. S. Office of Education.

Years	Enrollment					High-school graduates		Current expenditure per pupil in average daily attendance	Expenditure for textbooks free to pupils
	Total	Kindergarten through grade 8		Grades 9 through 12 and postgraduate					
		Boys	Girls	Boys	Girls	Boys	Girls		
1947-1948...	23,944,532	9,429,268	8,861,959	2,747,061	2,906,244	507,649	565,529	179.43	37,553,364
1948-1949...	24,476,658	9,707,391	9,110,863	2,759,298	2,899,106	499,984	557,960	197.65	43,481,000
1949-1950...	25,111,000	10,018,000	9,387,000	2,812,000	2,895,000	505,394	558,050	208.83	48,076,000
1951-1952...	26,563,000	10,649,000	10,032,000	2,885,000	2,997,000	501,723	553,863	244.24	53,677,000
1953-1954*	28,836,000	11,609,000	10,937,000	3,085,000	3,205,000	544,575	584,966	264.76	72,660,000
1955-1956...	31,162,800	12,491,700	11,798,500	3,415,700	3,456,900	606,502	645,552	294.22	75,626,000

* Number of boys and girls in elementary and secondary schools in 1953-54 are estimated from total enrollment.

Federal Government Funds for Education, 1956-57

Source: U. S. Office of Education.

Classification of programs by department or agency		Classification of programs by department or agency	
	Amount		Amount
Elementary & secondary education.....	\$ 656,632,000	In-service training of civilian personnel.....	\$ 3,485,000
Department of Health, Education & Welfare	210,027,000	Department of Health, Education & Welfare	1,585,000
Department of Agriculture.....	320,658,000	Department of Commerce.....	9,000
Department of Defense.....	24,375,000	Department of Defense.....	1,884,000
Department of the Interior.....	89,527,000	Federal Deposit Insurance Corporation....	7,000
Department of the Treasury.....	23,000	Education of Merchant Marine and military personnel for defense.....	34,497,000
Atomic Energy Commission.....	4,097,000	Department of Commerce.....	2,837,000
Canal Zone.....	3,615,000	Department of Defense.....	28,333,000
District of Columbia.....	4,310,000	Department of the Treasury.....	3,327,000
Higher education.....	1,032,524,000	Research in educational institutions.....	133,328,000
Department of Health, Education & Welfare	196,839,000	Department of Health, Education & Welfare	11,555,000
Department of Defense.....	14,740,000	Department of Agriculture.....	78,723,000
Department of the Treasury.....	25,000	Atomic Energy Commission.....	26,620,000
Veterans Administration.....	813,955,000	National Advisory Committee for Aeronautics	580,000
National Science Foundation.....	6,965,000	National Science Foundation.....	15,268,000
Adult education.....	87,220,000	Tennessee Valley Authority.....	582,000
Department of Health, Education & Welfare	70,706,000	International education.....	50,139,000
Department of the Interior.....	898,000	Department of Health, Education & Welfare	24,000
Department of Justice.....	530,000	Department of Commerce.....	500,000
Department of Labor.....	3,399,000	Department of Labor.....	2,500,000
Canal Zone.....	32,000	Department of State.....	47,115,000
Federal Civil Defense Administration.....	707,000	TOTAL.....	\$1,997,825,000
National Science Foundation.....	10,948,000		

Special Schools & Classes for Exceptional Children, 1952-53¹

Source: U. S. Office of Education.

Type ²	No. of—		Enrollment		No. of Teachers ⁴
	States reporting ³	Places reporting	Elementary schools	Secondary schools	
Mentally retarded.....	48	1,244	84,878	28,687	7,067
Speech-defective.....	49	1,087	254,179	52,568	2,256
Crippled.....	45	596	15,924	1,889	1,498
Hard-of-hearing.....	46	497	9,680	2,252	480
Partially seeing.....	39	408	6,544	1,470	647
Special health problems.....	40	330	10,166	1,289	868
Deaf.....	34	185	3,446	489	479
Blind.....	19	67	658	181	95
Mentally gifted.....	15	27	3,683	19,233	926
TOTAL.....	49	1,785 ⁵	389,158	108,058	14,316

¹ Public schools only; continental U. S. These are the latest data available. ² Excludes truant, delinquent and maladjusted children; home-and-hospital-bound children; exceptional children enrolled in residential schools. ³ Includes D. C. ⁴ Includes both full-time and part-time teachers. A teacher serving more than one type of exceptional child is reported only with the type to which she devotes the major portion of her time. ⁵ Total reporting a program for one or more of the specified types of exceptional children.

High-school and College Graduates, 1900-58

(Public and private schools)

Source: U. S. Office of Education.

Year of graduation	HIGH SCHOOL			COLLEGE*		
	Men	Women	Total	Men	Women	Total
1900.....	38,075	56,808	94,883	22,173	5,237	27,410
1910.....	63,676	92,753	156,429	28,762	8,437	37,199
1920.....	123,684	187,582	311,266	31,980	16,462	48,622
1929-30.....	300,376	366,528	666,904	73,615	48,869	122,484
1939-40.....	578,718	642,757	1,221,475	109,546	76,954	186,500
1947-48.....	562,863	627,046	1,189,909	175,456	95,563	271,019
1949-50.....	570,700	629,000	1,199,700	328,841	103,217	432,058
1950-51.....	562,500	619,300	1,181,800	278,240	104,306	382,546
1951-52.....	569,200	627,300	1,196,500	225,981	104,005	329,986
1952-53†.....	572,800	625,500	1,198,300	199,793	103,256	303,049
1953-54.....	612,500	663,600	1,276,100	186,528	104,297	290,825
1954-55†.....	645,300	699,100	1,344,400	182,463	102,675	285,138
1955-56.....	679,500	735,300	1,414,800	198,233	110,579	308,812
1956-57†.....	701,000	757,000	1,458,000	221,231	116,432	337,663
1957-58†.....	731,000	791,000	1,522,000	240,990	121,564	362,554

* 1st-level degree in given field of study. † High-school graduates are estimated.

Enrollment in Vocational Classes, 1958*

Source: U. S. Office of Education.

Type of program	Evening classes	Part-time classes	Day classes	All classes
Agriculture.....	265,437	48,677	461,778	775,892
Home economics.....	577,451	67,472	914,899	1,559,822
Trades and industry.....	520,182	191,453	272,009	983,644
Distributive occupations.....	202,408	80,150	.....	282,558
Practical nursing.....	11,700†	.....	15,723‡	27,423
Total.....	1,577,178	387,752	1,664,409	3,629,339

* Provisional figures, subject to final review of state reports. † Extension. ‡ Preparatory.

Number Surviving Through College Entrance per 1,000 Pupils

Source: U. S. Office of Education.

Grade or year	1937- 1938	1938- 1939	1939- 1940	1940- 1941	1941- 1942	1942- 1943	1943- 1944	1944- 1945	1945- 1946	1946- 1947	1947- 1948	1948- 1949
Elementary: Fifth.....	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Sixth.....	954	955	963	968	952	954	972	952	959	954	971	954
Seventh.....	901	908	916	910	905	909	914	929	944	945	948	958
Eighth.....	850	853	846	836	834	847	870	858	875	919	919	929
High School: I.....	811	796	781	781	789	807	827	848	872	872	858	863
II.....	679	655	673	697	698	713	745	748	766	775	748	795
III.....	519	532	552	566	581	604	630	650	662	641	670	706
IV.....	428	444	476	507	514	539	557	549	552	583	594	619
Graduates.....	398	419	450	481	488	505	524	522	524	553	559	581
Year of graduation.....	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Enter college.....	■	*	*	*	*	205	218	234	266	283	286	297

* Because of veteran students, it is not possible to calculate retention rates.

White and Negro School Statistics, 1953-54*

(Public elementary and secondary schools in 17 Southern states and the District of Columbia)

Source: U. S. Office of Education.

State	Enrollment		Instructional staff ¹		Average annual salary of instructional staff		Expenditure ² per pupil in A.D.A. ³	
	White	Negro	White	Negro	White	Negro	White	Negro
Alabama.....	460,507	243,140	15,764	7,912	\$2,834	\$2,681	\$111.99	\$105.02
Arkansas.....	315,111	99,844	10,907	2,902	2,360	2,008	99.08	71.78
Delaware.....	47,237	9,968	2,109	411	.....	.....	.....	.....
D. C.....	49,106	60,029	1,770	1,941	4,998	4,614	240.27	186.71
Florida.....	487,698	140,779	17,836	5,300	3,836	3,613	175.92	160.61
Georgia.....	533,508	274,123	19,848	8,576	.....	.....	.....	.....
Kentucky.....	553,051	38,517	18,843	1,422	.....	.....	.....	.....
Louisiana.....	343,914	208,577	13,228	6,342	.....	.....	165.08	122.07
Maryland.....	338,308	89,984	12,691	3,022	.....	.....	.....	.....
Mississippi.....	263,478	263,930	9,609	6,777	2,261	1,302	98.15	43.17
Missouri.....	637,705	65,962	23,564	2,034	.....	.....	132.46	124.85
North Carolina.....	683,284	284,782	23,971	8,944	3,335	3,406	.....	.....
Oklahoma.....	446,989	36,111	17,521	1,615	3,265	3,346	161.57	165.88
South Carolina.....	304,908	234,529	11,219	7,181	.....	.....	.....	.....
Tennessee.....	598,247	118,048	20,329	3,771	.....	.....	.....	.....
Texas.....	1,388,828	215,465	50,717	7,697	.....	.....	.....	.....
Virginia.....	523,165	172,112	19,252	5,868	3,076	3,104	.....	.....
West Virginia.....	426,345	25,646	15,437	983	.....	.....	.....	.....
TOTAL.....	8,401,389	2,581,546	304,615	82,698	.....	.....	.....	.....

¹ Includes supervisors, principals, teachers, etc. ² For instruction. ³ Average daily attendance. * Latest data available.

Degrees Granted by Institutions of Higher Education, 1957-58

(Aggregate United States¹)

Source: U. S. Office of Education.

Field of study	Bachelor's and first professional		Second level (master's, except first professional)		Doctor's	
	Men	Women	Men	Women	Men	Women
Agriculture.....	5,434	91	937	12	303	6
Architecture.....	1,536	76	216	15	5	.....
Biological sciences.....	11,226	3,182	1,448	404	987	138
Business and commerce.....	47,286	3,968	3,896	145	104	5
Education.....	25,631	57,261	16,479	14,633	1,297	341
Engineering.....	35,223	109	5,768	20	643	4
English and journalism.....	8,439	10,796	1,382	1,150	282	53
Fine and applied arts.....	5,850	6,402	1,525	923	191	28
Foreign languages and literature.....	1,814	2,689	591	453	159	65
Health professions.....	15,154	8,769	969	711	140	7
Dentistry, D.D.S. and D.M.D. only.....	3,031	34	.....	.....	.....	.....
Medicine, M.D. only.....	6,510	351	.....	.....	.....	.....
Nursing.....	49	6,003	5	474	.....	.....
Pharmacy.....	3,391	391	109	13	59	.....
Other.....	2,173	1,990	855	224	81	7
Home economics.....	36	4,276	7	440	9	14
Law.....	9,153	280	439	19	32	.....
Mathematical subjects.....	4,953	1,971	994	240	232	15
Physical sciences.....	12,683	1,669	2,763	271	1,589	66
Chemistry (excl. biochemistry).....	5,705	1,305	958	167	890	49
Physics.....	3,042	144	770	25	455	9
Other.....	3,936	220	1,035	79	244	8
Psychology.....	4,063	2,867	836	399	488	84
Religion.....	7,460	1,370	915	162	276	14
Social sciences.....	34,374	13,782	4,091	1,068	1,010	96
Economics.....	6,909	605	599	70	234	5
History.....	9,031	3,852	1,037	360	265	32
Political science or government.....	5,031	1,136	585	80	164	6
Sociology.....	2,977	3,606	258	139	122	28
Other.....	10,426	4,583	1,612	419	225	25
TOTAL ²	242,948	122,800	44,252	21,362	7,978	964

¹ Includes the 48 contiguous states, D. C., Alaska, Hawaii and outlying parts. ² Includes studies not listed in this table.

School Enrollment, 5 to 34 Years Old, October 1956 to October 1958

Source: U. S. Bureau of the Census.

Sex and age	October 1956		October 1957		October 1958	
	Number enrolled	% enrolled	Number enrolled	% enrolled	Number enrolled	% enrolled
MALE						
5 and 6 years.....	2,839,000	77.1	2,963,000	78.3	3,123,000	80.6
7 to 13 years.....	11,179,000	99.1	11,584,000	99.5	12,059,000	99.5
14 to 17 years.....	4,275,000	89.1	4,646,000	91.1	4,854,000	90.7
18 and 19 years.....	809,000	45.1	780,000	43.3	898,000	47.5
20 to 24 years.....	830,000	20.6	897,000	21.3	915,000	21.0
25 to 29 years.....	466,000	8.9	493,000	9.5	483,000	9.5
30 to 34 years.....	154,000	2.7	146,000	2.6	165,000	2.9
TOTAL, 5 to 34 years...	20,552,000	56.3	21,509,000	57.5	22,497,000	58.7
FEMALE						
5 and 6 years.....	2,758,000	78.2	2,866,000	79.0	2,978,000	80.2
7 to 13 years.....	10,767,000	99.4	11,121,000	99.5	11,564,000	99.4
14 to 17 years.....	4,138,000	87.3	4,421,000	87.8	4,591,000	87.6
18 and 19 years.....	598,000	27.4	629,000	28.1	667,000	29.4
20 to 24 years.....	362,000	6.8	439,000	8.2	393,000	7.3
25 to 29 years.....	100,000	1.7	111,000	1.9	121,000	2.2
30 to 34 years.....	78,000	1.2	70,000	1.1	90,000	1.5
TOTAL, 5 to 34 years...	18,801,000	48.7	19,657,000	50.0	20,404,000	51.0
TOTAL						
5 and 6 years.....	5,597,000	77.6	5,829,000	78.6	6,101,000	80.4
7 to 13 years.....	21,946,000	99.3	22,705,000	99.5	23,623,000	99.5
14 to 17 years.....	8,413,000	88.2	9,067,000	89.5	9,446,000	89.2
18 and 19 years.....	1,407,000	35.4	1,409,000	34.9	1,564,000	37.6
20 to 24 years.....	1,192,000	12.8	1,336,000	14.0	1,307,000	13.4
25 to 29 years.....	566,000	5.1	604,000	5.5	603,000	5.7
30 to 34 years.....	232,000	1.9	216,000	1.8	255,000	2.2
TOTAL, 5 to 34 years...	39,353,000	52.3	41,166,000	53.6	42,900,000	54.8

NOTE: Figures include children enrolled in kindergarten.

Estimated Public and Private School Enrollment, By Type of School, 1958-59

Source: U. S. Office of Education.

Type of school	Enrollment	Type of school	Enrollment
Kindergarten Through Grade 8		Higher Education	
Public schools.....	26,927,000	Universities, colleges, professional schools, including junior colleges and normal schools....	3,623,000
Private and parochial schools.....	4,693,000	Other Schools	
Federal schools for Indians.....	25,000	Private commercial schools.....	560,000
Federal schools under P.L. 874 ¹	20,000	Nurse-training schools (not affiliated with colleges and universities).....	89,000
Other schools ²	128,000	Total other schools.....	649,000
Total, kindergarten through grade 8.....	31,793,000	Grand total.....	44,945,000
Grades 9 Through 12			
Public schools.....	7,790,000		
Private and parochial schools.....	1,002,000		
Federal schools for Indians.....	11,000		
Federal schools under P.L. 874 ¹	1,000		
Other schools ²	76,000		
Total, grades 9 through 12.....	8,880,000		
Total, kindergarten through grade 12.....	40,673,000		

NOTE: These estimates include enrollments for the entire school or college year; they are not restricted to September enrollments alone.

¹ Includes only "schools operated on post by a Federal agency." ² Includes model and practice schools in teacher training institutions, subcollegiate departments of colleges, and residential schools for exceptional children.

Accredited U. S. Colleges and Universities

Spring Semester, 1959

Only schools fully accredited by at least one of the six regional accrediting associations are listed. The number of students is for matriculated undergraduate and graduate students who are working for a degree.

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Abilene Christian College; Abilene, Tex. (1906).....	Don H. Morris.....	2,253 C	Ch. of Christ ⁴
Adams State College; Alamosa, Colo. (1925).....	Fred J. Plachy.....	1,079 C	State
Adelphi College; Garden City, N. Y. (1896).....	Paul D. Eddy.....	3,426 C	Private
Adrian College; Adrian, Mich. (1845).....	John H. Dawson.....	564 C	Methodist ⁴
Agnes Scott College; Decatur, Ga. (1889).....	Wallace M. Alston.....	620 F	Presbyterian ⁴
Akron, University of; Akron, Ohio (1870).....	Norman P. Auburn.....	4,285 C	City
Alabama, University of; Tuscaloosa, Ala. (1831) ⁷	Frank A. Rose.....	12,201 C	State
Alabama A & M College; Normal, Ala. (1875).....	J. F. Drake.....	721 C	State
Alabama College; Montevallo, Ala. (1896).....	Howard M. Phillips.....	960 C	State
Alabama Polytechnic Institute; Auburn, Ala. (1872).....	Ralph B. Draughon.....	7,994 C	State
Alaska, University of; College, Alaska (1922).....	E. N. Patty.....	571 C	State
Albany State College; Albany, Ga. (1903).....	William H. Dennis, Jr.....	609 C ³	State
Albertus Magnus College; New Haven, Conn. (1925).....	Sister Marie Louise.....	280 F	Catholic ⁴
Albion College; Albion, Mich. (1835).....	William W. Whitehouse.....	1,310 C	Methodist ⁴
Albright College; Reading, Pa. (1856).....	H. V. Masters.....	742 C	Evan. Un. Breth. ⁴
Alfred University; Alfred, N. Y. (1836) ⁹	M. Ellis Drake.....	1,369 C	Private
Allegheny College; Meadville, Pa. (1815).....	Lawrence L. Pelletier.....	1,110 C	Methodist ⁴
Alliance College; Cambridge Springs, Pa. (1912).....	A. P. Clemen.....	230 C	Private
Alma College; Alma, Mich. (1886).....	Robert D. Swanson.....	646 C	Presbyterian
Alverno College; Milwaukee, Wis. (1890).....	Sister M. Augustine.....	909 F	Cath. ⁴
American International College; Springfield, Mass. (1885).....	John F. Hines.....	950 C ¹⁰	Private
American University; Washington, D. C. (1839).....	Hurst R. Anderson.....	4,966 C	Methodist
Amherst College; Amherst, Mass. (1821).....	Charles W. Ccle.....	1,025 M	Private
Anderson College & Theological Seminary; Anderson, Ind. (1917).....	Robert H. Reardon.....	925 C	Church of God
Anna Maria College; Paxton, Mass. (1946).....	Sister Irene Maria.....	381 F	Catholic ⁴
Annhurst College; South Woodstock, Conn. (1941).....	Mother Anne Emilienne.....	152 F ⁸	Catholic ⁴
Antioch College; Yellow Springs, Ohio (1852).....	William.....	1,184 C	Private
Appalachian State Teachers College; Boone, N. C. (1903).....	Vicant H. Plemmons.....	2,164 C	State
Aquinas College; Grand Rapids, Mich. (1922).....	Msgr. A. F. Bukowski.....	725 C	Catholic
Arizona, University of; Tucson, Ariz. (1885).....	Richard A. Harvill.....	10,956 C	State
Arizona State College; Flagstaff, Ariz. (1899).....	J. Lawrence Walkup.....	1,280 C	State
Arizona State University; Tempe, Ariz. (1885).....	Grady Gammage.....	10,843 C	State
Arkansas, University of; Fayetteville & Little Rock, Ark. (1871).....	John T. Caldwell.....	5,781 C	State
Arkansas A & M College; College Heights, Ark. (1909).....	Horace E. Thompson.....	1,070 C	State
Arkansas A, M & Normal College; Pine Bluff, Ark. (1875).....	Lawrence A. Davis, Sr.....	1,404 C	State
Arkansas Polytechnic College; Russellville, Ark. (1908).....	J. W. Hull.....	1,173 C	State
Arkansas State College; Jonesboro & Beebe, Ark. (1909).....	Carl R. Reng.....	2,567 C	State
Arkansas State Teachers College; Conway, Ark. (1907).....	Silas D. Snow.....	1,426 C	State
Art Center School; Los Angeles, Calif. (1930).....	Edward A. Adams.....	927 C	Private
Asbury College; Wilmore, Ky. (1890).....	Z. T. Johnson.....	859 C	Private
Ashland College; Ashland, Ohio (1878).....	Glenn L. Clayton.....	929 C	Brethren ⁴
Assumption College; Worcester, Mass. (1904).....	V. Rev. A. H. Desautels.....	348 M ⁶	Catholic ⁴
Athens College; Athens, Ala. (1822).....	Virgil B. McCain, Jr.....	428 C	Methodist ⁴
Atlanta University System:			
Atlanta University; Atlanta, Ga. (1865).....	Rufus E. Clement.....	701 C	Private
Morehouse College; Atlanta, Ga. (1867).....	Benjamin E. Mays.....	756 M	Private
Spelman College; Atlanta, Ga. (1881).....	Albert E. Manley.....	423 F	Private
Atlantic Christian College; Wilson, N. C. (1902).....	Arthur D. Wenger.....	1,058 C	Disc. of Christ
Atlantic Union College; South Lancaster, Mass. (1884).....	L. M. Stump.....	606 C	7th Day Adven.
Augsburg College & Theological Seminary; Minneapolis (1869).....	Bernhard M. Christensen.....	808 C	Lutheran
Augustana College; Rock Island, Ill. (1860).....	Conrad Bergendoff.....	1,278 C	Lutheran
Augustana College; Sioux Falls, S. Dak. (1860).....	Lawrence M. Stavig.....	1,205 C	Lutheran
Aurora College; Aurora, Ill. (1893).....	Theodore P. Stephens.....	707 C	Adven. Christ.
Austin College; Sherman, Tex. (1849).....	John D. Moseley.....	747 C	Presbyterian
Austin Peay State College; Clarksville, Tenn. (1927).....	Halbert Harvill.....	1,206 C	State
Babson Institute; Babson Park, Mass. (1919).....	Gordon M. Trim.....	570 M	Private
Baker University; Baldwin, Kans. (1858).....	Wm. J. Scarborough.....	508 C	Methodist ⁴
Baldwin-Wallace College; Berea, Ohio (1845).....	A. B. Bonds, Jr.....	2,121 C	Methodist
Ball State Teachers College; Muncie, Ind. (1918).....	John R. Emens.....	5,148 C	State
Barat College of the Sacred Heart; Lake Forest, Ill. (1919) ¹¹	Mother Margaret Burke.....	345 F	Catholic ⁴
Barber-Scottia College; Concord, N. C. (1867).....	L. S. Cozart.....	238 C	Presbyterian ⁴
Bard College; Annandale-on-Hudson, N. Y. (1860).....	James H. Case, Jr.....	260 C	Private
Barnard College; New York, N. Y. (1889).....	Millicent C. McIntosh.....	1,359 F	Private
Barry College; Miami, Fla. (1940).....	Rev. Mother M. Gerald.....	744 F ⁶	Catholic ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Bates College; Lewiston, Maine (1864).....	Charles F. Phillips.....	834 C	Private
Baylor University; Waco, Houston & Dallas, Tex. (1845).....	William R. White.....	4,703 C	Baptist
Beaver College; Jenkintown & Glenside, Pa. (1853).....	Raymon Kistler.....	630 F	Presbyterian ⁴
Belhaven College; Jackson, Miss. (1883).....	McFerran Crowe.....	228 C	Presbyterian
Bellarmine College; Louisville, Ky. (1950).....	Rt. Rev. A. F. Horrigan.....	998 M ⁵	Catholic
Belmont Abbey College; Belmont, N. C. (1876).....	V. Rev. Cuthbert E. Allen.....	623 ¹²	Catholic ⁴
Beloit College; Beloit, Wis. (1846).....	Miller Upton.....	978 C	Congregational ⁴
Bemidji State College; Bemidji, Minn. (1919).....	C. R. Sattgast.....	984 C	State
Benedict College; Columbia, S. C. (1870) ¹³	J. A. Baccaos.....	664 C	Baptist ⁴
Bennett College; Greensboro, N. C. (1873).....	Willia B. Player.....	480 F	Methodist ⁴
Bennington College; Bennington, Vt. (1932).....	William C. Fels.....	345 F	Private
Berea College; Berea, Ky. (1855).....	Francis S. Hutchins.....	1,158 C	Private
Berry College; Mount Berry, Ga. (1902).....	John R. Bertrand.....	562 C	Private
Bethany College; Bethany, W. Va. (1840).....	Perry E. Gresham.....	559 C	Disc. of Christ ⁴
Bethany College; Lindsborg, Kans. (1881).....	L. Dale Lund.....	684 C	Lutheran
Bethany-Nazarene College; Bethany, Okla. (1909).....	Roy H. Cantrell.....	1,037 C	Nazarene
Bethel College; McKenzie, Tenn. (1842).....	Roy N. Baker.....	512 C	Presbyterian
Bethel College; North Newton, Kans. (1887).....	D. C. Wedel.....	497 C ⁸	Mennonite ⁴
Birmingham-Southern College; Birmingham, Ala. (1856).....	Henry K. Stanford.....	1,037 C ⁸	Methodist
Black Hills Teachers College; Spearfish, S. Dak. (1883).....	Russell E. Jonas.....	700 C	State
Blackburn College; Carlinville, Ill. (1857).....	Robert P. Ludlum.....	358 C	Presbyterian ⁴
Blue Mountain College; Blue Mountain, Miss. (1873).....	Lawrence T. Lowrey.....	282 F ⁶	Baptist
Bluefield State College; Bluefield, W. Va. (1895).....	LeRoy B. Allen.....	773 C	State
Bluffton College; Bluffton, Ohio (1900).....	Lloyd L. Ramseyer.....	342 C	Mennonite ⁴
Boston College; Chestnut Hill, Weston & Lenox, Mass. (1863).....	V. Rev. Michael P. Walsh.....	7,416 C	Catholic ⁴
Boston University; Boston, Mass. (1839).....	Harold C. Case.....	21,916 C	Methodist ⁴
Bowdoin College; Brunswick, Maine (1794).....	James S. Coles.....	779 M	Private
Bowling Green State University; Bowling Green, Ohio (1910) ¹⁴	Ralp W. McDonald.....	5,361 C	State
Bradley University; Peoria, Ill. (1897).....	Harold P. Rodes.....	4,334 C	Private
Brandeis University; Waltham, Mass. (194...).....	Abram L. Sachar.....	1,112 C	Private ¹⁵
Brenau College; Gainesville, Ga. (1878).....	Josiah Crudup.....	298 F	Private
Brescia College; Owensboro, Ky. (1927) ¹¹	Sister Ambrose Martin.....	557 C	Catholic ⁴
Briar Cliff College; Sioux City, Iowa (1930) ¹⁶	Sister Mary Matilda.....	381 F ⁹	Catholic ⁴
Bridgeport, University of; Bridgeport, Conn. (1927).....	James H. Halsey.....	2,865 C	Private
Bridgewater College; Bridgewater, Va. (1880).....	Warren D. Bowman.....	532 C	Brethren ⁴
Brigham Young University; Provo, Utah (1875).....	Ernest L. Wilkinson.....	9,767 C ⁸	Latter-day Saints
Brooklyn, Polytechnic Inst. of; Brooklyn and Freeport, N. Y. (1854).....	Ernst Weber.....	4,377 C	Private
Brooklyn College. See New York, College of the City of.....			
Brown University; Providence, R. I. (1764) ¹⁷	Barnaby C. Keeney.....	3,845 Co	Private
Bryn Mawr College; Bryn Mawr, Pa. (1885).....	Katharine E. McBride.....	864 F ⁶	Private
Bucknell University; Lewisburg, Pa. (1846).....	Merle M. Odgers.....	2,097 C	Private
Buena Vista College; Storm Lake, Iowa (1891).....	John A. Fisher.....	523 C	Presbyterian
Buffalo, University of; Buffalo, N. Y. (1846).....	Clifford C. Furnas ¹⁸	10,563 C	Private
Butler University; Indianapolis, Ind. (1855).....	M. O. Ross.....	4,067 C	Disc. of Christ ⁴
Caldwell College for Women; Caldwell, N. J. (1939).....	Sister M. Marguerite.....	348 F	Catholic ⁴
California, University of; Berkeley, Calif. (1868).....	Clark Kerr.....	40,973 C ¹⁰	State
Berkeley Campus.....	Glenn T. Seaborg ¹⁸	18,145 C	State
Davis Campus.....	Emil M. Mrak ¹⁸	2,289 C	State
La Jolla Campus.....	Roger R. Revelle ²⁰	44 C	State
Los Angeles Campus (UCLA).....	(Vacant) ¹⁸	15,829 C	State
Riverside Campus.....	Herman T. Spieth ¹⁸	935 C	State
San Francisco Campus.....	J. B. DeC. M. Saunders ²¹	1,441 C	State
Santa Barbara Campus.....	Samuel B. Gould ¹⁸	2,350 C	State
California College of Arts & Crafts; Oakland, Calif. (1907).....	Joseph A. Danysh.....	438 C	Private
California Institute of Technology; Pasadena, Calif. (1891).....	Lee A. DuBridge.....	1,226 M ⁵	Private
California School of Fine Arts; San Francisco, Calif. (1874).....	Gurdon Woods ²⁰	203 C	Private
California State Polytechnic College; San Luis Obispo, Calif. (1901) ²²	Julian A. McPhee.....	4,045 C	State
California Western University; San Diego, Calif. (1924) ²³	William C. Rust.....	1,085 C	Methodist ⁴
Calvin College; Grand Rapids, Mich. (1876).....	William Spoelhof.....	1,819 C	Christian Ref.
Canisius College; Buffalo, N. Y. (1870).....	V. Rev. P. E. Dobson.....	2,104 M ⁵	Catholic
Capital University; Columbus, Ohio (1850).....	Harold L. Yochum.....	1,225 C	Lutheran
Cardinal Stritch College; Milwaukee, Wis. (1937).....	Sister Mary Aquin.....	451 F	Catholic ⁴
Carleton College; Northfield, Minn. (1866).....	Laurence M. Gould.....	1,058 C	(24C)
Carnegie Institute of Technology; Pittsburgh, Pa. (1900).....	John C. Warner.....	4,767 C	Private
Carroll College; Helena, Mont. (1909).....	V. Rev. R. G. Hunthausen.....	532 C	Catholic
Carroll College; Waukesha, Wis. (1846).....	Robert D. Steele.....	774 C	Presbyterian ⁴
Carson-Newman College; Jefferson City, Tenn. (1851).....	Harley Fite.....	1,271 C	Baptist
Carthage College; Carthage, Ill. (1847).....	Harold H. Lentz.....	500 C	Lutheran
Cascade College; Portland, Oreg. (1918).....	Edison Hagegger.....	211 C	Private
Case Institute of Technology; Cleveland, Ohio (1880).....	Kent H. Smith ²⁵	2,159 M	Private
Catawba College; Salisbury, N. C. (1851).....	A. R. Keppel.....	730 C	Un. Ch. of Christ ⁴
Catholic University of America; Washington, D. C. (1889).....	Rt. Rev. W. J. McDonald ²⁶	3,681 C	Catholic

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Catholic Univ. of Puerto Rico; Ponce & Aguadilla, P. R. (1948)...	Rev. Thomas Stanley ²⁸ ...	2,364 C	Catholic ⁴
Cedar Crest College; Allentown, Pa. (1867)...	Dale H. Moore...	450 F	Un. Ch. of Christ ⁴
Centenary College of Louisiana; Shreveport, La. (1825)...	Joe J. Mickle...	1,560 C	Methodist
Central College; Fayette, Mo. (1854)...	Ralph L. Woodward...	705 C	Methodist
Central College; Pella, Iowa (1853)...	G. T. Vander Lugt...	425 C	Reformed ⁴
Central Michigan University; Mt. Pleasant, Mich. (1892)...	Charles L. Anspach...	6,031 C	State
Central Missouri State College; Warrensburg, Mo. (1871)...	Warren C. Lovinger...	2,753 C	State
Central State College; Edmond, Okla. (1890)...	W. Max Chambers...	3,019 C	State
Central Washington College of Education; Ellensburg, Wash. (1890)...	Robert E. McConnell...	1,840 C	State
Centre College of Kentucky; Danville, Ky. (1819)...	Thomas A. Spragens...	417 C	Presbyterian ⁴
Chapman College; Orange, Calif. (1861)...	John L. Davis...	384 C	Disc. of Christ ⁴
Charleston, College of; Charleston, S. C. (1770)...	George D. Grice...	254 C	Private
Chatham College; Pittsburgh, Pa. (1869)...	Paul R. Anderson...	442 F	Private
Chattanooga, University of; Chattanooga, Tenn. (1886)...	LeRoy A. Martin...	1,870 C	Private
Chestnut Hill College; Philadelphia, Pa. (1871)...	Sister Catharine Frances...	506 F	Catholic ⁴
Cheyney State Teachers College. See Pennsylvania			
Chicago, School of the Art Institute of; Chicago, Ill. (1879)...	Hubert Ropp ²⁷ ...	1,983 C	Private
Chicago, University of; Chicago, Ill. (1890)...	Lawrence A. Kimpton ¹⁸ ...	6,266 C	Private
Chicago Teachers College; Chicago, Ill. (1869)...	Raymond M. Cook ²⁷ ...	4,429 C	City
Chico State College; Chico, Calif. (1887)...	Glenn Kendall...	3,252 C	State
Chouinard Art Institute; Los Angeles, Calif. (1921) ¹¹ ...	Mrs. N. M. Chouinard...	737 C	Private
Cincinnati, University of; Cincinnati, Ohio (1819)...	Walter C. Langsam...	13,648 C	City
Citadel, The; Military College of S. C.; Charleston, S. C. (1842)...	Gen. Mark W. Clark...	1,950 M	State
City College. See New York, College of the City of			
Claremont College; Claremont, Calif. (1925)...	Robert J. Bernard...	548 C	Private
Claremont Men's College; Claremont, Calif. (1946)...	George C. S. Benson...	350 M	Private
Clark College; Atlanta, Ga. (1869)...	James P. Brawley...	748 C	Methodist
Clark University; Worcester, Mass. (1837) ¹¹ ...	Howard B. Jefferson...	1,117 Co	Private
Clarke College; Dubuque, Iowa (1843)...	Sister Mary Benedict...	611 F	Catholic ⁴
Clarkson College of Technology; Potsdam, N. Y. (1896)...	William G. Van Note...	1,372 M	Private
Clemson Agricultural College; Clemson, S. C. (1889)...	Robert Cook Edwards...	3,579 C	State
Coe College; Cedar Rapids, Iowa (1851)...	Joseph E. McCabe...	708 C	Presbyterian ⁴
Coker College; Hartsville, S. C. (1908)...	J. A. Barry...	357 C	Private
Colby College; Waterville, Maine (1813)...	J. Seelye Bixler...	1,120 C	Private
Colgate University; Hamilton, N. Y. (1819)...	Everett Case...	1,348 M	Private
Colorado, University of; Boulder & Denver, Colo. (1877)...	Quigg Newton...	10,321 C	State
Colorado College; Colorado Springs, Colo. (1874)...	Louis T. Benezet...	1,031 C	Private
Colorado State College; Greeley, Colo. (1890)...	William R. Ross...	3,568 C	State
Colorado State University; Fort Collins, Colo. (1870)...	William E. Morgan...	5,424 C	State
Columbia College; Columbia, S. C. (1854) ¹¹ ...	R. Wright Spears...	624 F ⁴	Methodist
Columbia University; New York, N. Y. (1754)...	Grayson Kirk...	20,849 C	Private
Concord College; Athens, W. Va. (1875)...	Virgil H. Stewart...	1,206 C	State
Concordia College; Moorhead, Minn. (1891)...	Joseph L. Knutson...	1,491 C	Lutheran
Concordia Teachers College; River Forest, Ill. (1864)...	Rev. Martin L. Koehnke...	804 C	Lutheran
Concordia Teachers College; Seward, Nebr. (1893)...	Paul A. Zimmerman...	552 C	Lutheran
Connecticut, Teachers College of; New Britain, Conn. (1849)...	Herbert D. Welte...	1,813 C	State
Connecticut, University of; Storrs, Conn. (1881) ²⁹ ...	A. N. Jorgensen...	8,329 C	State
Connecticut College for Women; New London, Conn. (1911)...	Rosemary Park...	914 F ⁴	Private
Converse College; Spartanburg, S. C. (1889)...	O. C. Carmichael, Jr....	437 F ⁴	Private
Cooper Union; New York, N. Y. (1859)...	Edwin S. Burdell...	1,212 C	Private
Cornell College; Mount Vernon, Iowa (1853)...	Russell D. Cole...	698 C	Methodist ⁴
Cornell University; Ithaca & New York, N. Y. (1865)...	Deane W. Malott...	10,629 C	Private ²⁸
Creighton University; Omaha, Nebr. (1878)...	V. Rev. Carl M. Reinert...	2,545 C	Catholic ⁴
Culver-Stockton College; Canton, Mo. (1853)...	Fred Helsabeck...	601 C	Disc. of Christ ⁴
Dakota Wesleyan University; Mitchell, S. Dak. (1885)...	Jack J. Early...	413 C	Methodist ⁴
Dana College; Blair, Nebr. (1884)...	C. Clifford Madsen...	320 C	Lutheran
Danbury State Teachers College; Danbury, Conn. (1904)...	Ruth A. Haas...	1,183 C	State
Dartmouth College; Hanover, N. H. (1769)...	John S. Dickey...	3,111 M	Private
David Lipscomb College; Nashville, Tenn. (1891)...	Athens Clay Pullias...	983 C	Ch. of Christ ⁴
Davidson College; Davidson, N. C. (1836)...	D. Grier Martin...	910 M	Presbyterian
Davis & Elkins College; Elkins, W. Va. (1904)...	David K. Allen...	498 C	Presbyterian
Dayton, University of; Dayton, Ohio (1850)...	V. Rev. A. L. Seebold...	5,358 C	Catholic ⁴
Delaware, University of; Newark, Del. (1833)...	John A. Perkins...	4,885 C	State
Delaware State College; Dover, Del. (1891)...	Jerome H. Holland...	300 C	State
Delta State College; Cleveland, Miss. (1924)...	James M. Ewing...	711 C	State
Denison University; Granville, Ohio (1831)...	A. Blair Knapp...	1,343 C	Baptist ⁴
Denver, University of; Denver, Colo. (1864)...	Chester M. Alter ¹⁸ ...	4,253 C	Methodist ⁴
DePaul University; Chicago, Ill. (1898)...	V. Rev. C. J. O'Malley...	7,145 C	Catholic ⁴
DePauw University; Greencastle, Ind. (1837)...	Russell J. Humbert...	2,100 C	Methodist ⁴
Detroit, University of; Detroit, Mich. (1877)...	Rev. Celestin J. Steiner...	10,002 C	Catholic ⁴
Dickinson College; Carlisle, Pa. (1773)...	William W. Edel...	1,013 C	Methodist ⁴
Dillard University; New Orleans, La. (1930) ²¹ ...	Albert W. Dent...	829 C	Cong. & Meth. ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
District of Columbia Teachers College; Washington, D. C. (1851)	Paul O. Carr.....	1,314 C	City
Doane College; Crete, Nebr. (1872)	Donald M. Typer.....	300 C	Congregational ⁴
Dominican College of San Rafael; San Rafael, Calif. (1890)	Sister M. Patrick.....	493 F	Catholic ⁴
Douglass College; New Brunswick, N. J. (1918) ²⁰	(Vacant) ²⁷	1,381 F	State
Drake University; Des Moines, Iowa (1881)	Henry G. Harmon.....	5,996 C	Private
Drew University; Madison, N. J. (1867)	Fred G. Holloway.....	888 C	Methodist ⁴
Drexel Institute of Technology; Philadelphia, Pa. (1891)	James Creese.....	5,058 C	Private
Dropsie College; Philadelphia, Pa. (1907)	Abraham A. Neuman.....	148 C	Private
Drury College; Springfield, Mo. (1873)	J. F. Findlay.....	921 C	Congregational ⁴
Dubuque University of; Dubuque, Iowa (1852)	Gaylord M. Couchman.....	686 C	Presbyterian ⁴
Duchesne College of the Sacred Heart; Omaha, Nebr. (1881) ¹¹	Mother Edith McShane.....	303 F	Catholic ⁴
Duke University; Durham, N. C. (1838)	A. Hollis Edens.....	5,352 C	Methodist ⁴
Dunbarton College of Holy Cross; Washington, D. C. (1935)	Sister M. M. Dolores.....	237 F	Catholic ⁴
Duquesne University; Pittsburgh, Pa. (1878)	V. Rev. V. F. Gallagher.....	4,998 C	Catholic ⁴
D'Youville College; Buffalo, N. Y. (1908)	Sister Regina Marie.....	615 F	Catholic ⁴
Earlham College; Richmond, Ind. (1847)	Landrum R. Bolling.....	830 C	Quaker ⁴
East Carolina College; Greenville, N. C. (1907)	John D. Messick.....	3,559 C ⁸	State
East Central State College; Ada, Okla. (1909)	Charles F. Spencer.....	1,371 C	State
East Tennessee State College; Johnson City, Tenn. (1911)	Burgin E. Dossett.....	3,582 C	State
East Texas Baptist College; Marshall, Tex. (1914)	H. D. Bruce.....	536 C	Baptist
East Texas State College; Commerce, Tex. (1889)	James G. Gee.....	2,518 C	State
Eastern Baptist College; St. Davids, Pa. (1932)	Gilbert L. Guffin.....	268 C	Baptist ⁴
Eastern Baptist Theological Seminary, The; Philadelphia, Pa. (1925)	Gilbert L. Guffin.....	207 C	Baptist ⁴
Eastern Illinois University; Charleston, Ill. (1895)	Quincy Doudna.....	2,398 C ⁸	State
Eastern Kentucky State College; Richmond, Ky. (1906)	W. F. O'Donnell.....	2,784 C	State
Eastern Michigan University; Ypsilanti, Mich. (1849)	Eugene B. Elliott.....	3,993 C	State
Eastern Montana College of Education; Billings, Mont. (1927)	H. L. Steele.....	962 C ⁸	State
Eastern Nazarene College; Quincy, Mass. (1918)	Edward S. Mann.....	533 C	Nazarene
Eastern New Mexico University; Portales, N. Mex. (1934)	Floyd D. Golden.....	1,576 C	State
Eastern Oregon College; La Grande, Oreg. (1929)	Frank B. Bennett.....	660 C	State
Eastern Washington College of Education; Cheney, Wash. (1890)	Don S. Patterson.....	1,742 C	State
Edgewood College of the Sacred Heart; Madison, Wis. (1927)	Sister Mary Nona.....	321 F	Catholic ⁴
Edinboro State Teachers College. See Pennsylvania.			
Elizabeth City State Teachers College; Elizabeth City, N. C. (1891)	Walter N. Ridley.....	458 C	State
Elizabethtown College; Elizabethtown & Harrisburg, Pa. (1899)	A. C. Baugher.....	903 C	Brethren ⁴
Elmhurst College; Elmhurst, Ill. (1871)	Robert C. Stanger.....	800 C	Evan. & Ref. ⁴
Elmira College; Elmira, N. Y. (1855)	J. Ralph Murray.....	723 F ⁸	Private
Elon College; Elon College, N. C. (1889)	James E. Danieley.....	962 C	Cong. Christian
Emerson College; Boston, Mass. (1880)	S. Justus McKinley.....	433 C	Private
Emmanuel College; Boston, Mass. (1919)	Sister Alice Gertrude.....	755 F	Catholic ⁴
Emmanuel Missionary College; Berrien Springs, Mich. (1874)	F. O. Rittenhouse.....	921 C	7th Day Adven.
Emory & Henry College; Emory, Va. (1846)	Earl G. Hunt, Jr.....	598 C	Methodist
Emory University; Atlanta & Oxford, Ga. (1836)	S. Walter Martin.....	3,202 C	Methodist ⁴
Emporia, The College of; Emporia, Kans. (1882)	Luther E. Sharpe.....	280 C	Presbyterian
Erskine College; Due West, S. C. (1839)	J. M. Lesesne.....	537 C	Presbyterian
Evansville College; Evansville, Ind. (1854)	Melvin W. Hyde.....	3,113 C	Methodist ⁴
Fairfield University; Fairfield, Conn. (1942)	Rev. J. E. Fitzgerald.....	1,040 M	Catholic
Fairleigh Dickinson University; Rutherford, N. J. (1941) ²⁰	Peter Sammartino.....	10,910 C	Private
Fairmont State College; Fairmont, W. Va. (1867)	John W. Pence.....	1,269 C	State
Fayetteville State Teachers College; Fayetteville, N. C. (1877)	Rudolph Jones.....	641 C	State
Fenn College; Cleveland, Ohio (1932)	G. Brooks Earnest.....	2,659 C	Private
Finch College; New York, N. Y. (1900)	Roland R. De Marco.....	259 F	Private
Fisk University; Nashville, Tenn. (1866)	S. J. Wright.....	672 C	Private
Flora Macdonald College; Red Springs, N. C. (1896)	Marshall S. Woodson.....	316 F ⁸	Presbyterian
Florence State College; Florence, Ala. (1872)	E. B. Norton.....	1,449 C	State
Florida University of; Gainesville, Fla. (1855)	J. Wayne Reitz.....	11,130 C	State
Florida A & M University; Tallahassee, Fla. (1887)	George W. Gora, Jr.....	2,436 C	State
Florida Southern College; Lakeland, Fla. (1885)	Charles T. Thrift, Jr.....	2,511 C	Methodist
Florida State University; Tallahassee, Fla. (1851)	R. M. Strozler.....	7,219 C	State
Fontbonne College; St. Louis, Mo. (1923)	Sister M. M. Sheeley.....	580 F	Catholic ⁴
Fordham University; New York, N. Y. (1841)	Rev. Laurence J. McGinley.....	8,851 C	Catholic
Fort Hays Kansas State College; Hays, Kans. (1902)	M. C. Cunningham.....	2,540 C	State
Fort Valley State College; Fort Valley, Ga. (1895)	C. V. Troup.....	744 C	State
Franklin & Marshall College; Lancaster, Pa. (1787)	F. deWolfe Bolman, Jr.....	1,196 M	Ch. of Christ ⁴
Franklin College of Indiana; Franklin, Ind. (1834)	Harold W. Richardson.....	576 C	Baptist ⁴
Fresno State College; Fresno and Bakersfield, Calif. (1911)	Arnold E. Joyal.....	6,141 C	State
Friends University; Wichita, Kans. (1898)	Lowell E. Roberts.....	724 C	Quaker
Furman University; Greenville, S. C. (1826)	John L. Plyler.....	1,285 C	Baptist
Gallaudet College; Washington, D. C. (1864)	Leonard M. Elstad.....	349 C	Private
Gannon College; Erie, Pa. (1944)	Rev. Wilfrid J. Nash.....	1,556 M	Catholic ⁴
General Assembly's Training School. See Presbyterian School.			
Geneva College; Beaver Falls, Pa. (1848)	Edwin C. Clarke.....	787 C	Presbyterian

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
George Peabody College for Teachers; Nashville, Tenn. (1875) ¹¹	Henry H. Hill	1,607 C	Private
George Pepperdine College; Los Angeles, Calif. (1937)	M. Norvel Young	1,046 C	Ch. of Christ ⁴
George Washington University; Washington, D. C. (1821)	Oswald S. Colclough ²⁵	6,993 C	Private
George Williams College; Chicago, Ill. (1890)	John R. McCurdy	298 C	Private
Georgetown College; Georgetown, Ky. (1798)	Henson Harris ²¹	1,183 C	Baptist ⁴
Georgetown University; Washington, D. C. (1789)	V. Rev. Edward B. Bunn	6,067 M ⁵	Catholic ⁴
Georgia, University of; Athens, Ga. (1785)	O. C. Aderhold	8,331 C	State
Georgia Institute of Technology; Atlanta, Ga. (1885)	Edwin D. Harrison	5,173 C	State
Georgia State College for Women; Milledgeville, Ga. (1889)	Robert E. Lee	661 F ⁶	State
Georgia State College of Bus. Adminis.; Atlanta, Ga. (1914)	Noah N. Langdale, Jr.	4,551 C	State
Georgia Teachers College; Collegeboro, Ga. (1908)	Zach S. Henderson	1,081 C	State
Georgian Court College; Lakewood, N. J. (1908) ²²	Mother Marie Anna	410 F ⁶	Catholic ⁴
Gettysburg College; Gettysburg, Pa. (1832)	Willard S. Paul	1,606 C	Lutheran ⁴
Glassboro State College; Glassboro, N. J. (1923)	Thomas E. Robinson	2,663 C	State
Glenville State College; Glenville, W. Va. (1872)	Harry B. Hefflin	663 C	State
Golden Gate College; San Francisco, Calif. (1901)	Russell T. Sharpe	1,198 C	Private
Gonzaga University; Spokane, Wash. (1887)	V. Rev. E. W. Morton	1,598 C	Catholic
Good Counsel College; White Plains, N. Y. (1923)	Mother Mary Dolores	376 F	Catholic ⁴
Goshen College; Goshen, Ind. (1894)	Paul Mininger	913 C	Mennonite
Goucher College; Baltimore, Md. (1885)	Otto F. Kraushaar	750 F	Private
Grambling College; Grambling, La. (1901)	R. W. E. Jones	2,479 C	State
Great Falls, College of; Great Falls, Mont. (1932)	Rt. Rev. J. J. Donovan	601 C	Catholic ⁴
Greensboro College; Greensboro, N. C. (1838)	Harold H. Hutson	512 C	Methodist ⁴
Greenville College; Greenville, Ill. (1892)	H. J. Long	555 C	Methodist ⁴
Grinnell College; Grinnell, Iowa (1846)	Howard R. Bowen	904 C	Cg.-Chr. & Epis. ⁴
Grove City College; Grove City, Pa. (1876)	J. Stanley Harker	1,353 C	Presbyterian ⁴
Guilford College; Greensboro, N. C. (1837)	Clyde A. Milner	1,101 C	Quaker ⁴
Gustavus Adolphus College; St. Peter, Minn. (1862)	Edgar M. Carlson	1,071 C	Lutheran
Hamilton College; Clinton, N. Y. (1793)	Robert W. McEwen	657 M	Private
Hamline University; St. Paul, Minn. (1854)	Paul H. Giddens	988 C	Methodist ⁴
Hampden-Sydney College; Hampden-Sydney, Va. (1776)	Joseph Clarke Robert	400 M	Presbyterian ⁴
Hampton Institute; Hampton, Va. (1868)	Alonzo G. Morón	1,203 C	Private
Hanover College; Hanover, Ind. (1827)	John E. Horner	771 C	Presbyterian ⁴
Hardin-Simmons University; Abilene, Tex. (1891)	Evan A. Reiff	1,419 C	Baptist
Harding College; Searcy, Ark., & Memphis, Tenn. (1924)	George S. Benson	967 C	Ch. of Christ ⁴
Harpur College. See New York, State University of.			
Harris Teachers College; St. Louis, Mo. (1858)	Glynn E. Clark	1,433 C	City
Hartford, University of; Hartford, Conn. (1877)	Alan S. Wilson ²³		Private
Hartford Art School; Hartford, Conn. (1877)	Alan Tompkins ²⁰	103 C	Private
Hartt College of Music; Hartford, Conn. (1920)	Moshe Paranov	278 C	Private
Hillier College; Hartford, Conn. (1879) ¹¹	Alan S. Wilson	4,850 C	Private
Hartwick College; Oneonta, N. Y. (1928)	M. A. F. Ritchie	517 C	Lutheran ⁴
Harvard University; Cambridge, Mass. (1636)	Nathan M. Pusey	12,769 C ³⁴	Private
Hastings College; Hastings, Nebr. (1882)	Theron B. Maxson	786 C	Presbyterian ⁴
Haverford College; Haverford, Pa. (1833)	Hugh Borton	454 M	Quaker ⁴
Hawaii, University of; Honolulu & Hilo, Hawaii (1907)	Laurence H. Snyder	4,891 C	State
Hebrew Teachers College; Brookline, Mass. (1921)	Eisig Silberschlag ²⁷	105 C	Private
Heidelberg College; Tiffin, Ohio (1850)	Terry Wickham	852 C	Evan. & Ref. ⁴
Henderson State Teachers College; Arkadelphia, Ark. (1929)	D. D. McBrien	1,652 C	State
Hendrix College; Conway, Ark. (1884)	Marshall T. Steel	579 C	Methodist
High Point College; High Point, N. C. (1924)	Dennis H. Cooke	942 C	Methodist ⁴
Hillsdale College; Hillsdale, Mich. (1844)	J. Donald Phillips	703 C	Baptist ⁴
Hillier College. See Hartford.			
Hiram College; Hiram, Ohio (1850)	Paul F. Sharp	556 C	Disc. of Christ ⁴
Hobart & William Smith Colleges; Geneva, N. Y. (1822) ²⁵	Rev. L. M. Hirshon	942 Co	Private ²⁰
Hofstra College; Hempstead, N. Y. (1935)	John C. Adams	7,855 C	Private
Hollins College; Hollins College, Va. (1842)	John R. Everett	635 F ⁶	Private
Holy Cross, College of the; Worcester, Mass. (1843)	V. Rev. W. A. Donaghy	1,823 M	Catholic ⁴
Holy Names, College of the; Oakland & Los Gatos, Calif. (1868)	Sister Imelda Maria	603 F	Catholic ⁴
Holy Names College; Spokane Wash. (1907)	Sister Marian Raphael	329 F	Catholic ⁴
Hood College; Frederick, Md. (1893)	Andrew G. Truxal	608 F	Ch. of Christ ⁴
Hope College; Holland, Mich. (1851)	Irwin J. Lubbers	1,178 C	Reformed
Houghton College; Houghton, N. Y. (1883)	Stephen W. Paine	657 C	Methodist
Houston, University of; Houston, Tex. (1934)	Lt. Gen. A. D. Bruce ¹⁸	11,773 C	(²⁷)
Howard College; Birmingham, Ala. (1842)	Leslie S. Wright	1,952 C	Baptist
Howard University; Washington, D. C. (1867)	Mordecai W. Jolinson	4,334 C	Private
Humboldt State College; Arcata, Calif. (1913)	Cornelius H. Siemens	1,705 C	State
Hunter College. See New York, College of the City of.			
Huntingdon College; Montgomery, Ala. (1854)	Hubert Searcy	672 C	Methodist ⁴
Huron College; Huron, S. Dak. (1883)	Daniel E. Kerr	362 C	Presbyterian ⁴
Idaho, College of; Caldwell, Idaho (1891)	Tom E. Shearer	859 C	Presbyterian ⁴
Idaho, University of; Moscow, Idaho (1889)	D. R. Theophilus	3,916 C ²⁸	State

Institution, location and (date founded)

Chief executive¹Students²Control³

Idaho State College; Pocatello, Idaho (1901).....	Carl W. McIntosh.....	1,930 C	State
Illinois, University of; Urbana & Chicago, Ill. (1867).....	David D. Henry.....	24,811 C	State
Illinois College; Jacksonville, Ill. (1829).....	L. Vernon Caine.....	456 C	Cong. & Presb. ⁴
Illinois Institute of Technology; Chicago, Ill. (1892).....	John T. Rettaliata.....	6,775 C	Private
Illinois State Normal University; Normal, Ill. (1857).....	Robert G. Bone.....	4,087 C	State
Illinois Wesleyan University; Bloomington, Ill. (1850).....	Lloyd M. Bertholf.....	1,150 C	Methodist ⁴
Immaculata College; Immaculata, Pa. (1920).....	Sister Mary of Lourdes.....	631 F	Catholic ⁴
Immaculate Heart College; Los Angeles, Calif. (1916).....	Sister Mary Humiliata.....	1,468 F ⁶	Catholic ⁴
Incarinate Word College; San Antonio, Tex. (1881).....	Sister M. Columkille.....	928 F	Catholic ⁴
Indiana Central College; Indianapolis, Ind. (1902).....	I. Lynd Esch.....	632 C	Evan. Un. Breth. ⁴
Indiana State Teachers College; Terre Haute, Ind. (1870).....	Raleigh W. Holmstedt.....	3,347 C	State
Indiana University; Bloomington & Indianapolis, Ind. (1820) ⁵⁰	H. B. Wells.....	22,033 C	State
Inter American Univ. of Puerto Rico; San Germán, P. R. (1912) ⁴⁰	Ronald C. Bauer.....	1,231 C	Presbyterian ⁴
Iona College; New Rochelle, N. Y. (1940).....	Rev. Brother W. H. Barnes.....	1,880 M	Catholic
Iowa, State University of; Iowa City, Iowa (1847).....	Virgil M. Hancher.....	10,129 C	State
Iowa State Teachers College; Cedar Falls, Iowa (1876).....	J. W. Maucker.....	3,253 C	State
Iowa State University of Science & Tech.; Ames, Iowa (1858).....	James H. Hilton.....	9,058 C	State
Iowa Wesleyan College; Mount Pleasant, Iowa (1842).....	J. Raymond Chadwick.....	617 C	Methodist
Ithaca College; Ithaca, N. Y. (1892).....	Howard I. Dillingham.....	1,226 C	Private
Jackson College; Medford, Mass. (1910) ⁴¹	Katharine R. Jeffers ²⁷	560 F	Private
Jacksonville University; Jacksonville, Fla. (1934).....	Franklyn A. Johnson.....	1,754 C	Private
Jamestown College; Jamestown, N. Dak. (1884).....	Edwin H. Rian.....	466 C	Presbyterian ⁴
Jewish Theological Seminary of America; N. Y. C. (1887) ⁴²	Louis Finkelstein ²⁸	487 C ⁴³	Jewish
John Carroll University; Cleveland, Ohio (1886).....	Rev. Hugh E. Dunn.....	3,376 M ⁶	Catholic ⁴
Johns Hopkins University; Baltimore, Md. (1876).....	Milton S. Eisenhower.....	2,300 M	Private
Johnson C. Smith University; Charlotte, N. C. (1867).....	Rufus P. Perry.....	786 C	Presbyterian ⁴
Judson College; Marion, Ala. (1838).....	J. I. Riddle.....	254 F	Baptist
Julliard School of Music; New York, N. Y. (1905).....	William Schuman.....	643 C	Private
Juniata College; Huntingdon, Pa. (1876).....	Calvert N. Ellis.....	714 C	Brethren ⁴
Kalamazoo College; Kalamazoo, Mich. (1833).....	Weimer K. Hicks.....	610 C	Baptist ⁴
Kansas, University of; Lawrence & Kansas City, Kans. (1865).....	Franklin D. Murphy ¹⁸	7,847 C	State
Kansas City, University of; Kansas City, Mo. (1933).....	Richard M. Drake ¹⁹	2,649 C	Private
Kansas State College of Pittsburg; Pittsburg, Kans. (1903).....	Leonard H. Axe.....	2,518 C	State
Kansas State Teachers College; Emporia, Kans. (1863).....	John E. King.....	2,942 C	State
Kansas State Univ. of Agr. & App. Sci.; Manhattan, Kans. (1863).....	James A. McCain.....	6,320 C	State
Kansas Wesleyan University; Salina, Kans. (1886).....	D. Arthur Zook.....	292 C	Methodist
Keene Teachers College; Keene, N. H. (1909).....	Lloyd P. Young.....	736 C	State
Kent State University; Kent, Ohio (1910) ⁴⁵	George A. Bowman.....	6,914 C	State
Kentucky, University of; Lexington, Ky. (1865) ⁴⁶	F. G. Dickey.....	7,593 C	State
Kentucky State College; Frankfort, Ky. (1886).....	Rufus B. Atwood.....	619 C	State
Kentucky Wesleyan College; Owensboro, Ky. (1858).....	Oscar W. Lever.....	544 C	Methodist
Kenyon College; Gambier, Ohio (1824).....	F. Edward Lund.....	532 M	Episcopal ⁴
Keuka College; Keuka Park, N. Y. (1890).....	William S. Litterick.....	324 F	Baptist ⁴
King College; Bristol, Tenn. (1867).....	R. T. L. Liston.....	280 C	Presbyterian
King's College; Wilkes-Barre, Pa. (1946).....	Rev. George P. Benaglia.....	978 M	Catholic ⁴
Knox College; Galesburg, Ill. (1837).....	Sharvy G. Umbeck.....	800 C	Private
Knoxville College; Knoxville, Tenn. (1875).....	James A. Colston.....	485 C	Presbyterian
Kutztown State Teachers College. See Pennsylvania.			
Lafayette College; Easton, Pa. (1826).....	K. Roald Bergethon.....	1,473 M	Presbyterian ⁴
La Grange College; La Grange, Ga. (1831).....	Wrights G. Henry, Jr.....	313 C	Methodist
Lake Erie College; Painesville, Ohio (1856).....	Paul Weaver.....	459 F ⁶	Private
Lake Forest College; Lake Forest, Ill. (1857).....	John R. Howard ²⁵	720 C	Presbyterian ⁴
Lamar State College of Technology; Beaumont, Tex. (1923).....	F. L. McDonald.....	4,035 C	State
Lambuth College; Jackson, Tenn. (1843).....	Luther L. Gobbel.....	445 C	Methodist
Lander College; Greenwood, S. C. (1872).....	B. M. Grier.....	384 C	County-Private
Langston University; Langston, Okla. (1897).....	G. L. Harrison.....	580 C	State
La Salle College; Philadelphia, Pa. (1863).....	Brother D. Bernian.....	4,010 M	Catholic ⁴
La Sierra College; Arlington, Calif. (1922).....	Norval F. Pease.....	808 C	7th Day Adven.
La Verne College; La Verne, Calif. (1891).....	Harold D. Fasnacht.....	508 C	Brethren ⁴
Lawrence College; Appleton, Wis. (1847).....	Douglas M. Knight.....	837 C	Methodist ⁴
Lebanon Valley College; Annville, Pa. (1866).....	F. K. Miller.....	657 C	Evan. Un. Breth.
Lehigh University; Bethlehem, Pa. (1865).....	Martin D. Whitaker.....	3,361 M ⁶	Private
LeMoine College; Memphis, Tenn. (1870).....	Hollis F. Price.....	476 C	Cong.-Chr. ⁴
LeMoine College; Syracuse, N. Y. (1946).....	V. Rev. Robert F. Grewen.....	1,137 C	Catholic ⁴
LeNoir Rhyme College; Hickory, N. C. (1891).....	Voigt R. Cromer.....	1,849 C	Lutheran
Lesley College; Cambridge, Mass. (1909).....	Trentwell M. White.....	765 F	Private
Lewis & Clark College; Portland, Oreg. (1867).....	Morgan S. Odell.....	998 C	Presbyterian ⁴
Limestone College; Gaffney, S. C. (1845).....	A. J. Eastwood.....	348 F	Private
Lincoln Memorial University; Harrogate, Tenn. (1897).....	Robert C. Provine.....	475 C	Private
Lincoln University; Jefferson City, Mo. (1866).....	Earl E. Dawson.....	1,288 C	State
Lincoln University; Lincoln University, Pa. (1854).....	A. O. Grubb ²⁵	345 C	Private
Lindenwood College; St. Charles, Mo. (1827).....	F. L. McCuer.....	473 F	Presbyterian

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Linfield College; McMinnville, Oreg. (1849).....	Harry L. Dillin.....	897 C	Baptist ⁴
Livingston State College; Livingston, Ala. (1835).....	D. P. Culp.....	685 C	State
Long Beach State College; Long Beach, Calif. (1949).....	(Vacant).....	9,504 C	State
Long Island University; Brooklyn, N. Y. (1926) ⁴⁷	Adm. R. L. Conolly.....	4,860 C	Private
Longwood College; Farmville, Va. (1884).....	Francis G. Lankford, Jr.,.....	954 F ⁵	State
Loras College; Dubuque, Iowa (1839).....	Rt. Rev. Msgr. D. V. Foley.....	1,246 M	Catholic
Loretto Heights College; Loretto, Colo. (1918).....	Sister Frances Marie.....	642 F	Catholic ⁴
Los Angeles County Art Institute; Los Angeles, Calif. (1918).....	Jarvis Barlow ²⁰	208 C	County
Los Angeles St. Coll. of App. Arts & Sciences; Los Angeles (1947).....	Howard S. McDonald.....	12,677 C	State
Louisiana College; Pineville, La. (1906).....	G. Earl Guinn.....	961 C	Baptist
Louisiana Polytechnic Institute; Ruston, La. (1894) ¹²	R. L. Ropp.....	2,674 C	State
Louisiana State University & A & M Col.; Baton Rouge (1860) ⁴⁸	Troy H. Middleton.....	8,642 C	State
Louisville, University of; Louisville, Ky. (1798).....	Philip G. Davidson.....	7,096 C	City
Lowell Technological Institute; Lowell, Mass. (1895).....	Martin J. Lydon.....	1,078 C	State
Loyola College; Baltimore, Md. (1852).....	V. Rev. Vincent F. Beatty.....	1,354 M ⁵	Catholic ⁴
Loyola University; Chicago, Ill. (1870).....	V. Rev. James F. Maguire.....	8,448 C	Catholic ⁴
Loyola University; Los Angeles, Calif. (1911).....	V. Rev. C. S. Casassa.....	1,668 M ⁵	Catholic ⁴
Loyola University; New Orleans, La. (1912).....	V. Rev. W. P. Donnelly.....	2,345 C	Catholic ⁴
Luther College; Decorah, Iowa (1861).....	J. W. Ylvisaker.....	1,156 C	Lutheran ⁴
Lycoming College; Williamsport, Pa. (1812).....	D. Frederick Wertz.....	912 C	Methodist
Lynchburg College; Lynchburg, Va. (1903).....	Orville W. Wake.....	764 C	Disc. of Christ ⁴
Macalester College; St. Paul, Minn. (1885).....	Harvey M. Rice.....	1,418 C	Presbyterian ⁴
MacMurray College; Jacksonville, Ill. (1846).....	Louis W. Norris.....	690 Co	Methodist ⁴
Madison College; Harrisonburg, Va. (1908).....	G. Tyler Miller.....	1,288 F ⁵	State
Maine, University of; Orono & Portland, Maine (1865).....	Lloyd H. Elliott.....	3,861 C	State
Manchester College; North Manchester, Ind. (1889).....	A. Blair Helman.....	844 C	Brethren ⁴
Manhattan College; New York, N. Y. (1853).....	Brother A. Philip.....	2,823 M	Catholic ⁴
Manhattan School of Music; New York, N. Y. (1917).....	John Brownlee ²⁰	572 C	Private
Manhattanville College of the Sacred Heart; Purchase, N. Y. (1841).....	Mother E. M. O'Byrne.....	769 F ⁵	Catholic ⁴
Mankato State College; Mankato, Minn. (1869).....	C. L. Crawford.....	4,077 C	State
Mansfield State College. See Pennsylvania.....			
Marian College; Indianapolis & Oldenburg, Ind. (1937).....	V. Rev. Francis J. Reine.....	564 C	Catholic
Marietta College; Marietta, Ohio (1797).....	W. Bay Irvine.....	1,046 C	Congregational ⁴
Marquette University; Milwaukee, Wis. (1881).....	V. Rev. E. J. O'Donnell.....	7,434 C	Catholic ⁴
Marshall College; Huntington, W. Va. (1837).....	Stewart H. Smith.....	3,760 C	State
Mary Baldwin College; Staunton, Va. (1842).....	Samuel R. Spencer, Jr.,.....	320 F	Presbyterian
Mary Hardin-Baylor College; Belton, Tex. (1845).....	Arthur K. Tyson.....	409 F	Baptist
Mary Manse College; Toledo, Ohio (1922).....	Sister John Baptist.....	739 F	Catholic
Mary Washington College; Fredericksburg, Va. (1908) ⁴⁹	Grellet C. Simpson ¹⁸	1,545 F	State
Marycrest College; Davenport, Iowa (1939).....	Mother M. Geraldine.....	703 F	Catholic ⁴
Marygrove College; Detroit, Mich. (1910).....	Sister M. Honora.....	892 F	Catholic ⁴
Maryknoll Seminary; Glen Ellyn, Ill. (1949).....	V. Rev. G. M. Buckley ²⁸	297 M	Catholic
Maryknoll Teachers College; Maryknoll, N. Y. (1931).....	Sister J. M. Lyons.....	129 F	Catholic ⁴
Maryland, University of; College Park, Md. (1807) ⁵⁰	Wilson H. Elkins.....	18,083 C ⁹⁵	State
Maryland State College; Princess Anne, Md. (1886) ⁶¹	John T. Williams.....	468 C	State
Maryland State Teachers College; Frostburg, Md. (1902) ¹³	R. Bowen Hardesty.....	609 C	State
Maryland State Teachers College; Salisbury, Md. (1925).....	Wilbur Devilbiss.....	319 C	State
Maryland State Teachers College; Towson, Md. (1866).....	Earle T. Hawkins.....	1,342 C	State
Marylhurst College; Marylhurst, Oreg. (1930).....	Sister Consuela Maria.....	447 F	Catholic ⁴
Marymount College; Salina, Kans. (1922).....	Sister E. L. Knaup.....	452 F ⁵	Catholic ⁴
Marymount College; Tarrytown, N. Y. (1907).....	Mother M. du Sacre Coeur.....	615 F	Catholic ⁴
New York City branch (1948).....	Mother M. R. McKay ²⁷	457 F	Catholic ⁴
Maryville College; Maryville, Tenn. (1819).....	Ralph W. Lloyd.....	633 C	Presbyterian ⁴
Maryville College of the Sacred Heart; St. Louis, Mo. (1872).....	Mother M. Erskine.....	252 F	Catholic ⁴
Marywood College; Scranton, Pa. (1915).....	Sister M. Eugenia.....	1,120 F	Catholic ⁴
Massachusetts, University of; Amherst, Mass. (1863).....	J. Paul Mather.....	4,758 C	State
Massachusetts College of Art; Boston, Mass. (1873).....	Robert L. Bertolli.....	496 C	State
Massachusetts Institute of Technology; Cambridge, Mass. (1861).....	Julius A. Stratton.....	6,228 C	Private
Massachusetts State Teachers College; Bridgewater, Mass. (1840) ¹¹	Clement C. Maxwell.....	855 C	State
Massachusetts State Teachers College; Fitchburg, Mass. (1894).....	Ralph F. Weston.....	1,097 C	State
Massachusetts State Teachers College; Framingham, Mass. (1838).....	Martin F. O'Connor.....	670 F	State
Massachusetts State Teachers College; Lowell, Mass. (1894).....	Daniel H. O'Leary.....	476 C	State
Massachusetts State Teachers College; North Adams, Mass. (1894).....	Eugene L. Freel.....	252 C	State
Massachusetts State Teachers College; Salem, Mass. (1854).....	Frederick A. Meier.....	1,310 C	State
Massachusetts State Teachers College; Westfield, Mass. (1839) ¹¹	Edward J. Scanlon.....	551 C	State
Massachusetts State Teachers College; Worcester, Mass. (1871).....	Eugene A. Sullivan.....	681 C	State
McMurry College; Abilene, Tex. (1923).....	Gordon R. Bennett.....	766 C	Methodist
McNeese State College; Lake Charles, La. (1939).....	Wayne N. Cusic.....	2,035 C	State
McPherson College; McPherson, Kans. (1887).....	D. W. Bittinger.....	485 C	Brethren ⁴
Medical Evangelists, Coll. of; Loma Linda & Los Angeles, Calif. (1905).....	G. T. Anderson.....	891 C	7th Day Adven.
Memphis State University; Memphis, Tenn. (1909).....	J. Millard Smith.....	4,050 C	State
Mercer University; Macon, Ga. (1833).....	George B. Connell.....	1,264 C	Baptist

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Mercy College; Detroit, Mich. (1941)	Sister Mary Lucille	571 F ⁶	Catholic ⁴
Mercyhurst College; Erie, Pa. (1926)	Mother M. Eustace	345 F	Catholic ⁴
Meredith College; Raleigh, N. C. (1891)	Carlyle Campbell	600 F	Baptist
Merrimack College; North Andover, Mass. (1947)	Rev. Vincent A. McQuade	1,429 C	Catholic
Miami, University of; Coral Gables, Fla. (1925)	Jay F. W. Pearson	12,731 C	Private
Miami University; Oxford, Ohio (1809) ⁶²	John D. Millet	5,502 C	State
Michigan, University of; Ann Arbor, Mich. (1817) ⁶³	Harlan Hatcher	22,550 C	State
Michigan College of Mining & Technology; Houghton, Mich. (1885) ⁶⁰	J. R. Van Pelt	2,634 C	State
Michigan State University; E. Lansing & Rochester, Mich. (1855)	John A. Hannah	20,427 C	State
Middle Tennessee State College; Murfreesboro, Tenn. (1909)	Quill E. Cope	2,344 C	State
Middlebury College; Middlebury, Vt. (1800)	Samuel S. Stratton	1,277 C ⁶⁸	Private
Midland College; Fremont, Nebr. (1887)	Paul W. Dieckman	475 C	Lutheran ⁴
Midwestern University; Wichita Falls, Tex. (1922)	Travis A. White	1,309 C	Private
Millersville State Teachers College. See Pennsylvania			
Millikin University; Decatur, Ill. (1901)	Paul L. McKay	1,467 C	Presbyterian ⁴
Mills College; Oakland, Calif. (1852)	C. Easton Rothwell	707 F ⁶	Private
Mills College of Education; New York, N. Y. (1909)	Amy Hostler	193 F	Private
Millsaps College; Jackson, Miss. (1892)	H. E. Finger, Jr.	852 C	Methodist
Milwaukee-Downer College; Milwaukee, Wis. (1851)	John B. Johnson, Jr.	184 F	Private
Minnesota, University of; Minneapolis, Minn. (1851) ⁶⁴	J. L. Morrill	26,568 C ⁶⁸	State
Misericordia College; Dallas, Pa. (1924)	Sister Mary Celestine	615 F	Catholic ⁴
Mississippi, University of; University, Miss. (1848)	J. D. Williams ¹⁸	3,831 C	State
Mississippi College; Clinton, Miss. (1826)	R. A. McLemore	1,562 C	Baptist
Mississippi Southern College; Hattiesburg, Miss. (1912)	William D. McCain	3,691 C	State
Mississippi State College for Women; Columbus, Miss. (1884)	Charles P. Hogarth	1,122 F	State
Mississippi State University; State College, Miss. (1878)	Ben F. Hilburn	4,278 C	State
Missouri, University of; Columbia & Rolla, Mo. (1839)	Elmer Ellis	12,000 C	State
Missouri Valley College; Marshall, Mo. (1888)	M. Earle Collins	427 C	Presbyterian
Monmouth College; Monmouth, Ill. (1853)	Robert W. Gibson	643 C	Presbyterian ⁴
Monmouth College; West Long Branch, N. J. (1933)	Edward G. Schlaefel	1,783 C	Private
Montana School of Mines; Butte, Mont. (1893)	Edwin G. Koch	248 C	State
Montana State College; Bozeman, Mont. (1893)	Roland R. Renne	3,427 C	State
Montana State University; Missoula, Mont. (1893)	H. K. Newburn	3,024 C	State
Montclair State College; Upper Montclair, N. J. (1908)	E. De Alton Partridge	2,982 C	State
Moorhead State College; Moorhead, Minn. (1887)	John J. Neumaier	958 C	State
Moravian College; Bethlehem, Pa. (1742)	Raymond S. Hauptert	786 C	Moravian
Morehead State College; Morehead, Ky. (1922)	Adron Doran	1,781 C	State
Morehouse College. See Atlanta University System			
Morgan State College; Baltimore, Md. (1867)	Martin D. Jenkins	2,150 C	State
Morningside College; Sioux City, Iowa (1894)	J. Richard Palmer	971 C	Methodist ⁴
Morris Brown College; Atlanta, Ga. (1881) ¹¹	John H. Lewis	820 C	A. M. E.
Morris Harvey College; Charleston, W. Va. (1888)	Leonard Riggelman	2,280 C	Private
Mount Angel College; Mount Angel, Ore. (1887)	Mother M. G. Piennett	156 C	Catholic ⁴
Mount Angel Seminary; St. Benedict, Ore. (1889)	Rt. Rev. Damian Jentges	221 M	Catholic
Mount Holyoke College; South Hadley, Mass. (1837)	Richard G. Gettell	1,353 F	Private
Mount Mary College; Milwaukee, Wis. (1913) ⁶⁵	Sister Mary J. Francis	1,005 F	Catholic ⁴
Mount Mercy College; Pittsburgh, Pa. (1929)	Mother M. M. Corbett	511 F	Catholic ⁴
Mount St. Agnes College; Mount Washington, Md. (1890)	Sister M. Cleophas	314 F	Catholic ⁴
Mount St. Joseph-on-the-Ohio, College of; Mt. St. Joseph, O. (1854)	Sister Maria Corona ²⁷	646 F ⁶	Catholic ⁴
Mount St. Joseph Teachers College; Buffalo, N. Y. (1937)	Sister M. Hubert	300 F	Catholic ⁴
Mount St. Mary College; Hooksett, N. H. (1934)	Sister M. Mauritia	207 F	Catholic ⁴
Mount St. Mary's College; Emmitsburg, Md. (1808)	Rt. Rev. John L. Sheridan	614 M	Catholic
Mount St. Mary's College; Los Angeles, Calif. (1925)	Sister Rose Gertrude	1,076 F ⁶	Catholic ⁴
Mount St. Scholastica College; Atchison, Kans. (1924)	Mother M. A. Schroll	527 F ⁶	Catholic ⁴
Mount St. Vincent, College of; New York, N. Y. (187)	Sister Catharine Marie	549 F	Catholic ⁴
Mount Union College; Alliance, O. (1846)	Carl C. Bracy	958 C	Methodist ⁴
Muhlenberg College; Allentown, Pa. (1848)	J. Conrad Seewers	919 C	Lutheran ⁴
Mundelein College; Chicago, Ill. (1930)	Sister Mary Ann Ida	1,051 F	Catholic ⁴
Murray State College; Murray, Ky. (1922)	Ralph H. Woods	2,588 C	State
Muskingum College; New Concord, Ohio (1837)	Robert N. Montgomery	1,115 C	Presbyterian ⁴
National College of Education; Evanston, Ill. (1886)	K. Richard Johnson	708 C	Private
Nazareth College; Louisville & Nazareth, Ky. (1920)	Sister M. Gertrude	1,022 F ⁶	Catholic ⁴
Nazareth College; Nazareth, Mich. (1924) ¹¹	Sister M. Kathleen	211 F	Catholic ⁴
Nazareth College; Rochester, N. Y. (1924)	Mother M. Helene	777 F	Catholic ⁴
Nebraska, University of; Lincoln & Omaha, Nebr. (1869)	Clifford M. Hardin ¹⁸	8,001 C	State
Nebraska State Teachers College; Chadron, Nebr. (1911)	Barton L. Kline	709 C	State
Nebraska State Teachers College; Kearney, Nebr. (1906)	Herbert L. Cushing	1,766 C	State
Nebraska State Teachers College; Peru, Nebr. (1867)	Neal S. Gomon	729 C	State
Nebraska State Teachers College; Wayne, Nebr. (1910)	W. A. Brandenburg	1,042 C	State
Nebraska Wesleyan University; Lincoln, Nebr. (1887)	Vance D. Rogers	935 C	Methodist
Nevada, University of; Reno & Las Vegas, Nev. (1874)	Charles J. Armstrong	2,256 C	State
New Church, Academy of the; Bryn Athyn, Pa. (1876)	Rt. Rev. W. D. Pendelton	60 C	(⁶⁶)

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
New England Conservatory of Music; Boston, Mass. (1867)	James Aliferis	358 C	Private
New Hampshire, University of; Durham, N. H. (1866)	Eldon L. Johnson	3,295 C	State
New Haven College; New Haven, Conn. (1920)	M. K. Peterson	1,650 C	Private
New Haven State Teachers College; New Haven, Conn. (1893)	Hilton C. Buley	2,934 C	State
New Jersey College for Women. See Douglass College			
New Mexico, University of; Albuquerque, N. Mex. (1889)	Tom L. Popejoy	5,467 C	State
New Mexico Highlands University; Las Vegas, N. Mex. (1892)	Thomas C. Donnelly	1,022 C	State
New Mexico Institute of Mining and Tech.; Socorro, N. Mex. (1889)	E. J. Workman	300 C	State
New Mexico St. U. of Agr., Eng. & Sci.; Univ. Park, N. Mex. (1889)	R. B. Corbett	2,855 C	State
New Mexico Western College; Silver City, N. Mex. (1893)	J. Cloyd Miller	675 C	State
New Rochelle, College of; New Rochelle, N. Y. (1904)	Mother Mary Peter Carthy	901 F	Catholic ⁴
New York, College of the City of			
Brooklyn College; Brooklyn, N. Y. (1930)	Harry D. Gideonse	11,852 C	City
City College; New York, N. Y. (1847)	Buell G. Gallagher	21,695 C	City
Hunter College; New York, N. Y. (1870)	George N. Shuster	8,775 F ⁵	City
Queens College; Flushing, N. Y. (1937)	Harold W. Stoke	6,051 C	City
New York, State University of; Albany, N. Y. (1948)	Thomas H. Hamilton	30,805 C ⁶⁷	State
Liberal Arts; Harpur College; Endicott, N. Y. (1946)	Glenn G. Bartle	792 C	State
Medical Colleges: Brooklyn, N. Y. (1857)	Robert A. Moore	584 C	State
Syracuse, N. Y. (1834)	Carlyle Jacobsen	306 C	State
Colleges of Education: Albany, N. Y. (1844)	Evan R. Collins	2,761 C	State
Brockport, N. Y. (1841)	Donald M. Tower	1,891 C	State
Buffalo, N. Y. (1869)	Ralph Horn ²⁵	3,537 C	State
Cortland, N. Y. (1863)	Danovan C. Moffett ²⁵	2,437 C	State
Fredonia, N. Y. (1867)	Harry W. Porter	904 C	State
Geneseo, N. Y. (1867)	Francis J. Moench	1,269 C	State
New Paltz, N. Y. (1886)	William J. Haggerty	1,387 C	State
Oneonta, N. Y. (1887)	Royal F. Netzer	1,358 C	State
Oswego, N. Y. (1861)	Foster S. Brown	2,141 C	State
Plattsburgh, N. Y. (1889)	George W. Angell	1,190 C	State
Potsdam, N. Y. (1889)	Frederick W. Crumb	1,052 C	State
Other Professional Colleges: College on L. I., Oyster Bay (1957)	Leonard K. Olsen ²⁷	224 C	State
College of Forestry at Syracuse U.; Syracuse, N. Y. (1911)	Hardy L. Shirley ²⁷	573 M ⁵	State
Maritime College at Ft. Schuyler; New York, N. Y. (1874)	Vice Adm. C. T. Durgin	490 M	State
College of Ceramics at Alfred U.; Alfred, N. Y. (1900)	John F. McMahon ²⁷	414 C	State
College of Agriculture at Cornell U.; Ithaca, N. Y. (1904)	William I. Myers ²⁷	1,860 C	State
College of Home Econ. at Cornell U.; Ithaca, N. Y. (1900)	Helen G. Canoyer ²⁷	722 F ⁵	State
School of Ind. & Labor Rel., Cornell U.; Ithaca, N. Y. (1945)	Robert F. Risley ⁵⁸	332 C	State
Veterinary College at Cornell U.; Ithaca, N. Y. (1894)	William A. Hagan ²⁷	237 C	State
Agricultural & Technical Institutes: Alfred, N. Y. (1908)	Paul B. Orvis ²⁰	1,181 C	State
Canton, N. Y. (1906)	Albert E. French ²⁰	445 C	State
Cobleskill, N. Y. (1911)	Ray L. Wheeler ²⁰	416 C	State
Delhi, N. Y. (1915)	William R. Kunsela ²⁰	366 C	State
Farmingdale, N. Y. (1916)	William A. Medesy ²⁰	1,369 C	State
Morrisville, N. Y. (1908)	Rayson W. Whipple ²⁰	567 C	State
New York University; New York, N. Y. (1831)	Carroll V. Newsom	32,453 C	Private
Newark College of Engineering; Newark, N. J. (1881)	Robert W. Van Houten	3,306 C	City & State
Newberry College; Newberry, S. C. (1856)	C. A. Kaufmann	608 C	Lutheran
Newcomb College; New Orleans, La. (1886) ⁶⁰	John R. Hubbard ²⁷	866 F	Private
Newton College of the Sacred Heart; Newton, Mass. (1946)	Mother Gabrielle Husson	453 F	Catholic ⁴
Niagara University, Niagara Falls, N. Y. (1856)	V. Rev. V. T. Swords	1,608 C	Catholic
North Carolina, Agr. & Tech. College of; Greensboro, N. C. (1891)	Wormoth T. Gibbs	2,424 C	State
North Carolina, Consolidated Univ. of; Chapel Hill, N. C. (1931)	William C. Friday	15,095 C	State
North Carolina State College; Raleigh, N. C. (1887)	(Vacant)	5,445 C	State
University of N. C. at Chapel Hill; Chapel Hill, N. C. (1789)	William B. Aycock ¹⁸	7,322 C	State
Woman's College; Greensboro, N. C. (1892)	Gordon W. Blackwell ¹⁸	2,328 F	State
North Carolina College at Durham; Durham, N. C. (1910)	Alfonso Elder	1,558 C	State
North Central College; Naperville, Ill. (1861)	C. Harve Geiger	843 C	Evan. Un. Breth. ⁴
North Dakota, University of; Grand Forks, N. Dak. (1883)	George W. Starcher	3,629 C	State
North Dakota Agricultural College; Fargo, N. Dak. (1889)	Fred S. Hultz	3,296 C ⁸	State
North Dakota State Teachers College; Dickinson, N. Dak. (1917)	Charles E. Scott	538 C	State
North Dakota State Teachers College; Minot, N. Dak. (1913)	C. P. Lura	1,386 C	State
North Dakota State Teachers College; Valley City, N. Dak. (1890)	R. L. Lokken	784 C	State
North Georgia College; Dahlonega, Ga. (1873)	Merritt E. Hoag	773 C ⁸	State
North Texas State College; Denton, Tex. (1890)	J. C. Matthews	6,324 C	State
Northeast Louisiana State College; Monroe, La. (1928)	George T. Walker	2,152 C	State
Northeast Missouri State Teachers College; Kirksville, Mo. (1867)	Walter H. Ryle	2,318 C	State
Northeastern State College; Tahlequah, Okla. (1909)	Harrell E. Garrison	2,051 C	State
Northeastern University; Boston, Mass. (1898)	Asa S. Knowles	17,494 C	Private
Northern Baptist Theological Seminary; Chicago, Ill. (1913)	Charles W. Koller	239 C	Baptist ⁴
Northern Illinois University; DeKalb & Oregon, Ill. (1895)	Leslie A. Holmes	5,164 C	State
Northern Michigan College; Marquette, Mich. (1899)	Edgar L. Harden	1,597 C	State

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Northern Montana College; Havre, Mont. (1929).....	L. O. Brockman.....	483 C ⁸	State
Northern State Teachers College; Aberdeen, S. Dak. (1901).....	J. Howard Kramer.....	1,460 C	State
Northland College; Ashland, Wis. (1892).....	Gus Turbeville.....	333 C	Congregational ⁴
Northwest Missouri State College; Maryville, Mo. (1905).....	J. W. Jones.....	1,675 C	State
Northwest Nazarene College; Nampa, Idaho (1913).....	John E. Riley.....	592 C	Nazarene
Northwestern State College; Alva, Okla. (1897).....	Jesse W. Martin.....	913 C	State
Northwestern State College; Natchitoches, La. (1884).....	John S. Kyser.....	2,435 C	State ¹
Northwestern University; Evanston & Chicago, Ill. (1851).....	J. Roscoe Miller.....	14,398 C	Private
Norwich University; Northfield, Vt. (1819).....	Ernest N. Harmon.....	825 M	Private
Notre Dame College of; Belmont, Calif. (1868).....	Sister Catharine Jullie.....	249 F	Catholic ⁴
Notre Dame, University of; Notre Dame, Ind. (1842).....	Rev. T. M. Hesburgh.....	5,888 M	Catholic ⁴
Notre Dame College; Cleveland, Ohio (1922).....	Sister Mary Loyole.....	341 F	Catholic ⁴
Notre Dame College of Staten Island; Staten Island, N. Y. (1931).....	Mother Saint Egbert.....	300 F	Catholic ⁴
Notre Dame of Maryland, College of; Baltimore, Md. (1873).....	Sister Margaret Mary.....	750 F	Catholic ⁴
Notre Dame Seminary; New Orleans, La. (1923).....	Rev. John McQuade.....	97 M	Catholic
Oberlin College; Oberlin, Ohio (1833).....	William E. Stevenson.....	2,176 C	Private
Occidental College; Los Angeles, Calif. (1887).....	Arthur G. Coons.....	1,416 C	Presbyterian ⁴
Oglethorpe University; Atlanta, Ga. (1835).....	Donald C. Agnew.....	195 C	Private
Ohio Northern University; Ada, Ohio (1871).....	F. Bringle McIntosh.....	1,274 C	Methodist ⁴
Ohio State University; Columbus, Ohio (1870) ⁶¹	Novice G. Fawcett.....	21,458 C	State
Ohio University; Athens, Ohio (1804) ⁶²	John C. Baker.....	7,342 C ⁶³	State
Ohio Wesleyan University; Delaware, Ohio (1842).....	David A. Lockmiller.....	2,007 C	Methodist ⁴
Oklahoma, University of; Norman & Oklahoma City, Okla. (1892).....	George L. Cross.....	10,547 C	State
Oklahoma Baptist University; Shawnee, Okla. (1910).....	John W. Raley.....	1,202 C	Baptist
Oklahoma City University; Oklahoma City, Okla. (1904).....	Jack S. Wilkes.....	2,420 C	Methodist ⁴
Oklahoma College for Women; Chickasha, Okla. (1908).....	Freeman H. Beets.....	672 F	State
Oklahoma State University; Stillwater & Okmulgee, Okla. (1891).....	Oliver S. Willham.....	8,926 C	State
Olivet Nazarene College; Kankakee, Ill. (1907).....	Harold W. Reed.....	856 C	Nazarene
Omaha, Municipal University of; Omaha, Nebr. (1908).....	P. Milo Bail.....	5,119 C	City
Oregon, University of; Eugene & Portland, Oreg. (1876).....	O. Meredith Wilson.....	5,450 C	State
Oregon College of Education; Monmouth, Oreg. (1882).....	Roy E. Lieuallen.....	892 C	State
Oregon State College; Corvallis, Oreg. (1868).....	A. L. Strand.....	7,577 C	State
Ottawa University; Ottawa, Kans. (1865).....	Andrew B. Martin.....	518 C	Baptist ⁴
Otterbein College; Westerville, Ohio (1847).....	Lynn W. Turner.....	858 C	Brethren ⁴
Quachita Baptist College; Arkadelphia, Ark. (1886).....	Ralph A. Phelps, Jr.....	878 C	Baptist
Our Lady of Cincinnati College; Cincinnati, Ohio (1935).....	Sister M. Grace Grace.....	597 F	Catholic ⁴
Our Lady of the Elms, College of; Chicopee, Mass. (1928).....	Sister Rose William.....	426 F	Catholic ⁴
Our Lady of the Lake College; San Antonio, Tex. (1896).....	John L. McMahon.....	633 F ⁶	Catholic ⁴
Ozarks, College of the; Clarksville, Ark. (1834).....	Winslow S. Drummond.....	285 C	Presbyterian
Pace College; New York, N. Y. (1906).....	Robert Scott Pace.....	3,783 C	Private
Pacific, College of the; Stockton & Dillon Beach, Calif. (1851).....	Robert E. Burns.....	1,787 C	Methodist ⁴
Pacific Lutheran College; Tacoma, Wash. (1894).....	S. C. Eastwood.....	1,500 C	Lutheran
Pacific Union College; Angwin & Albion, Calif. (1882).....	R. W. Fowler.....	928 C	7th Day Adven.
Pacific University; Forest Grove, Oreg. (1842).....	Levering Reynolds, Jr. ²⁷	674 C	Congregational ⁴
Pan American College; Edinburg, Texas (1927).....	R. P. Ward.....	1,766 C	County & State
Panhandle A & M College; Goodwell, Okla. (1909).....	Marvin McKee.....	872 C	State
Park College; Parkville, Mo. (1875).....	M. J. Stoker.....	318 C	Presbyterian ⁴
Parsons College; Fairfield, Iowa (1875).....	Millard G. Roberts.....	833 C	Presbyterian
Pasadena College; Pasadena, Calif. (1902).....	Russell V. DeLong.....	795 C	Nazarene
Peabody Institute; Baltimore, Md. (1857).....	John R. Montgomery.....	189 C	Private
Pembroke College; Providence, R. I. (1891) ¹⁷	Nancy D. Lewis ²⁷	886 F	Private
Pembroke State College; Pembroke, N. C. (1887).....	Walter J. Gale.....	407 C	State
Pennsylvania, University of; Philadelphia, Pa. (1740).....	Gaylord P. Harnwell.....	11,526 C	Private
Pennsylvania Military College; Chester, Pa. (1821).....	Edward E. MacMorland.....	821 M ¹⁰	Private
Pennsylvania State College of Optometry; Philadelphia, Pa. (1919).....	Albert Fitch.....	117 C	Private
Pennsylvania State Teachers College; Bloomsburg, Pa. (1839).....	Harvey A. Andruss.....	1,365 C	State
Pennsylvania State Teachers College; California, Pa. (1852).....	Michael Duda.....	1,593 C	State
Pennsylvania State Teachers College; Cheyney, Pa. (1837).....	James H. Duckrey.....	662 C	State
Pennsylvania State Teachers College; Clarion, Pa. (1867).....	Paul G. Chandler.....	955 C	State
Pennsylvania State Teachers College; East Stroudsburg, Pa. (1893).....	Le Roy J. Koehler.....	1,107 C	State
Pennsylvania State Teachers College; Edinboro, Pa. (1858).....	Thomas R. Miller.....	1,018 C	State
Pennsylvania State Teachers College; Indiana, Pa. (1875).....	Willis E. Pratt.....	2,900 C	State
Pennsylvania State Teachers College; Kutztown, Pa. (1866).....	Q. A. W. Rohrbach.....	1,278 C	State
Pennsylvania State Teachers College; Lock Haven, Pa. (1870).....	Richard T. Parsons.....	822 C	State
Pennsylvania State Teachers College; Mansfield, Pa. (1857).....	Lewis W. Rathgeber.....	814 C	State
Pennsylvania State Teachers College; Millersville, Pa. (1855).....	D. L. Biemesderfer.....	1,529 C	State
Pennsylvania State Teachers College; Shippensburg, Pa. (1871).....	Ralph E. Heiges.....	1,239 C	State
Pennsylvania State Teachers College; Slippery Rock, Pa. (1889).....	Norman N. Weisenfluh.....	1,145 C	State
Pennsylvania State Teachers College; West Chester, Pa. (1871) ¹⁸	Charles S. Swope.....	2,005 C	State
Pennsylvania State University; University Park, Pa. (1855) ⁶⁴	Eric A. Walker.....	18,974 C	State
Pfeiffer College; Misenheimer, N. C. (1885).....	J. Lem Stokes, II.....	698 C	Methodist ⁴
Philadelphia Textile Institute; Philadelphia, Pa. (1884).....	Bertrand W. Hayward.....	328 C	Private

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Philander Smith College; Little Rock, Ark. (1868)	M. Lafayette Harris	687 C	Methodist
Phillips University; Enid, Okla. (1906)	Eugene S. Briggs	963 C	Disc. of Christ
Pikeville College; Pikeville, Ky. (1889)	A. A. Page	760 C	Presbyterian
Pittsburgh, University of; Pittsburgh and Johnstown, Pa. (1787)	Edward H. Litchfield ¹⁸	12,644 C	Private
Plymouth Teachers College; Plymouth, N. H. (1870)	Harold E. Hyde	612 C	State
Pomona College; Claremont, Calif. (1887)	E. Wilson Lyon	1,040 C	Private
Portland, University of; Portland, Oreg. (1901)	Rev. Howard J. Kenna	1,471 C	Catholic ⁴
Portland State College; Portland, Oreg. (1955)	Bradford P. Millar	3,143 C	State
Prairie View A & M College; Prairie View, Tex. (1876)	E. B. Evans	2,700 C	State
Pratt Institute; Brooklyn, N. Y. (1887)	Robert F. Oxnam	4,350 C	Private
Presbyterian College; Clinton, S. C. (1880)	Marshall W. Brown	508 C	Presbyterian
Presbyterian School of Christian Education; Richmond, Va. (1914) ⁶⁴	C. E. S. Kraemer	107 C	Presbyterian
Princeton University; Princeton, N. J. (1746)	Robert F. Goheen	3,729 M	Private
Principia College; Elmhurst, Ill. (1898)	William E. Morgan	493 C	Private ⁶⁵
Providence College; Providence, R. I. (1917)	V. Rev. Robert J. Slavin	1,955 M	Catholic
Puerto Rico, University of; Rio Piedras, P. R. (1903) ⁶⁶	Jaime Benitez ¹⁹	15,890 C	Commonwealth
Puget Sound, College of; Tacoma, Wash. (1888)	R. Franklin Thompson	1,791 C	Methodist ⁴
Purdue University; Lafayette, Ind. (1869) ⁶⁷	Frederick L. Hovde	12,402 C	State
Queens College; Charlotte, N. C. (1857)	Edwin R. Walker	642 F ⁶	Presbyterian ⁴
Queens College (NYC). See New York, College of the City of.			
Quincy College; Quincy, Ill. (1860)	Rev. Julian Woods	743 C	Catholic ⁴
Quinnipiac College; Hamden, Conn. (1929)	Nils G. Sahlin	824 C	Private
Radcliffe College; Cambridge, Mass. (1879) ⁶⁸	Mary I. Bunting	1,544 F	Private
Radford College; Radford, Va. (1913) ⁶⁹	Charles K. Martin, Jr.	1,178 Co	State
Randolph-Macon College; Ashland, Va. (1830)	J. Earl Moreland	475 M ⁵	Methodist ⁴
Randolph-Macon Woman's College; Lynchburg, Va. (1891)	W. F. Quillian, Jr.	664 F	Methodist ⁴
Redlands, University of; Redlands, Calif. (1907)	George H. Armacost	1,418 C	Baptist ⁴
Reed College; Portland, Oreg. (1909)	Richard H. Sullivan	599 C	Private
Regis College; Denver, Colo. (1887)	V. Rev. Richard F. Ryan	998 M ⁵	Catholic ⁴
Regis College, Weston, Mass. (1927)	Sister Mary Alice	663 F	Catholic ⁴
Rensselaer Polytechnic Institute; Troy, N. Y. (1824) ⁷⁰	Richard G. Folsom	4,447 M ⁵	Private
Rhode Island, University of; Kingston, R. I. (1892)	Francis H. Horn	3,032 C	State
Rhode Island School of Design; Providence, R. I. (1877)	John R. Frazier	828 C	Private
Rice Institute; Houston, Tex. (1891)	William V. Houston	1,933 C	Private
Richmond, University of; Richmond, Va. (1830)	George M. Modlin	2,831 Co	Baptist ⁴
Rider College; Trenton, N. J. (1865)	Franklin F. Moore	2,309 C	Private]
Ripon College; Ripon, Wis. (1851)	Fred O. Pinkham	546 C	Private
Rivier College; Nashua, N. H. (1933)	Sister Clarice de St. Marie	284 F ⁶	Catholic ⁴
Roanoke College; Salem, Va. (1842)	H. Sherman Oberly	648 C	Lutheran ⁴
Rochester, University of; Rochester, N. Y. (1850)	Cornelius W. de Kiewiet	4,613 C	Private
Rochester Institute of Technology; Rochester, N. Y. (1829)	Mark Ellingson	2,117 C	Private
Rockford College; Rockford, Ill. (1847)	Leland H. Carlson	402 C	Private
Rockhurst College; Kansas City, Mo. (1910)	V. Rev. M. E. Van Ackeren	1,302 M ⁵	Catholic ⁴
Rocky Mountain College; Billings, Mont. (1883)	Philip M. Widenhouse	212 C	(71)
Rollins College; Winter Park, Fla. (1885)	Hugh F. McKean	685 C	Private
Roosevelt University; Chicago, Ill. (1945)	Edward J. Sparling	4,670 C	Private
Rosary College; River Forest, Ill. (1848)	Sister M. Aurelia	723 F ⁶	Catholic ⁴
Rosary Hill College; Buffalo, N. Y. (1947)	Sister M. Angela	400 F	Catholic ⁴
Rose Polytechnic Institute; Terre Haute, Ind. (1874)	Herman A. Moench ²⁶	366 M	Private
Rosemont College; Rosemont, Pa. (1922)	Mother Mary Aidan	513 F	Catholic
Russell Sage College; Troy & Albany, N. Y. (1916)	Lewis A. Froman	2,231 F ⁷²	Private
Rutgers—The State University; New Brunswick, N. J. (1766) ⁷³	Mason W. Gross	14,094 Co	State
Sacramento State College; Sacramento, Calif. (1947)	Guy A. West	6,046 C	State
Sacred Heart, College of the; Santurce, P. R. (1935)	Mother R. A. Arsuaga	182 F	Catholic ⁴
St. Ambrose College; Davenport, Iowa (1882)	Rt. Rev. William J. Collins	1,510 M ⁵	Catholic
St. Anselm's College; Manchester, N. H. (1889)	Rev. Gerald F. McCarthy	861 M ⁵	Catholic ⁴
St. Benedict, College of; St. Joseph, Minn. (1913)	Sister R. Westkaemper	400 F	Catholic ⁴
St. Benedict's College; Atchison, Kansas (1858)	Rev. Brendan Downey	640 M	Catholic
St. Bernard College; St. Bernard, Ala. (1892)	V. Rev. Brian Egan	450 C	Catholic ⁴
St. Bernardine of Siena College; Loudonville, N. Y. (1937)	Rev. Edmund F. Christy	1,613 M ⁵	Catholic ⁴
St. Bonaventure University; St. Bonaventure, N. Y. (1856)	V. Rev. Brian Lhotz	1,847 C	Catholic
St. Catherine, College of; St. Paul, Minn. (1905)	Sister Mary William	1,051 F	Catholic ⁴
St. Cloud State College; St. Cloud, Minn. (1869)	George F. Budd	2,805 C	State
St. Edward's Seminary; Kenmore, Wash. (1931)	Michael J. O'Neill	166 M	Catholic
St. Elizabeth, College of; Convent Station, N. J. (1899)	Sister Hildegard Marie	883 F	Catholic ⁴
St. Francis, College of; Joliet, Ill. (1920)	Sister Mary Elvira	456 F	Catholic ⁴
St. Francis College; Ft. Wayne, Ind. (1890)	Sister M. Rosanna	277 F ⁶	Catholic ⁴
St. Francis College; Loretto, Pa. (1847)	Rev. Kevin R. Keelan	1,047 C	Catholic ⁴
St. John Fisher College; Rochester, N. Y. (1951)	V. Rev. C. J. Lavery	410 M	Catholic
St. John's College; Annapolis, Md. (1696)	Richard D. Weigle	209 C	Private
St. John's College; Camarillo and San Fernando, Calif. (1926)	V. Rev. W. J. Kenneally	157 M	Catholic
St. John's University; Collegeville, Minn. (1857)	Rt. Rev. B. Dworschak ¹⁸	1,073 M	Catholic

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
St. John's University; Jamaica & Brooklyn, N. Y. (1870).....	V. Rev. John A. Flynn...	9,094 C	Catholic
St. Joseph College; Emmitsburg, Md. (1809).....	Sister Hilda Gleason....	417 F	Catholic ⁴
St. Joseph College; West Hartford, Conn. (1932).....	Sister M. Theodore....	552 F	Catholic ⁴
St. Joseph's College; Philadelphia, Pa. (1851).....	V. Rev. J. J. Bluett....	3,447 M ⁵	Catholic ⁴
St. Joseph's College; Rensselaer, Ind. (1889).....	V. Rev. R. H. Gross....	934 M ⁵	Catholic
St. Joseph's College for Women; Brooklyn, N. Y. (1916).....	Sister Vincent Therese..	525 F	Catholic ⁴
St. Lawrence University; Canton, N. Y. (1856).....	Eugene G. Bewkes....	1,282 C	Private
St. Louis University; St. Louis, Mo. (1818) ⁷⁴	V. Rev. Paul C. Reinert..	7,085 C	Catholic
St. Martin's College; Olympia, Wash. (1895).....	Rt. Rev. R. Heider....	296 M	Catholic
St. Mary, College of; Omaha, Nebr. (1923).....	Sister Mary Alice....	350 F	Catholic ⁴
St. Mary College; Xavier, Kans. (1923) ⁷⁵	Arthur M. Murphy....	698 F	Catholic ⁴
St. Mary of the Springs, College of; Columbus, Ohio (1911).....	Sister M. Angelita....	306 F	Catholic ⁴
St. Mary-of-the-Wasatch, College of; Salt Lake City, Utah (1926)	Sister M. Hildegardis....	71 F ⁶	Catholic ⁴
St. Mary-of-the-Woods Coll.; St. Mary-of-the-Woods, Ind. (1840)	Sister Francis Joseph....	513 F	Catholic ⁴
St. Mary's College; Notre Dame, Ind. (1844).....	Sister M. Madeleva....	1,035 F	Catholic ⁴
St. Mary's College; St. Mary's College & Moraga, Calif. (1863)...	Rev. Brother S. Albert....	705 M	Catholic
St. Mary's College; Winona, Minn. (1912).....	Brother I. Basil....	855 M	Catholic ⁴
St. Mary's Dominican College; New Orleans, La. (1910).....	Sister Mary Louise....	388 F	Catholic ⁴
St. Mary's Seminary & University; Baltimore, Md. (1791).....	V. Rev. L. P. McDonald..	770 M	Catholic
St. Mary's University; San Antonio, Tex. (1852).....	V. Rev. W. J. Buehler....	1,842 M ⁵	Catholic ⁴
St. Michael's College; Winooski, Vt. (1904).....	Rev. Gerald E. Dupont....	770 M	Catholic ⁴
St. Norbert College; West De Pere, Wis. (1898).....	V. Rev. D. M. Burke....	915 C	Catholic ⁴
St. Olaf College; Northfield, Minn. (1874).....	Clemens M. Granskou....	1,794 C	Lutheran ⁴
St. Patrick's Seminary; Menlo Park, Calif. (1898).....	V. Rev. Edward J. Wagner	158 M ⁷⁵	Catholic
St. Paul Seminary, The; St. Paul, Minn. (1895) ¹¹	Rev. William O. Brady....	350 M	Catholic
St. Peter's College; Jersey City, N. J. (1872).....	V. Rev. J. J. Shanahan....	1,838 M ⁵	Catholic ⁴
St. Procopius College; Lisle, Ill. (1887).....	Rev. Daniel W. Kucera....	328 M ⁶	Catholic
St. Rose, College of; Albany, N. Y. (1920).....	Sister C. Francis....	1,140 F ⁶	Catholic ⁴
St. Scholastica, College of; Duluth, Minn. (1912).....	Sister J. Baldeschwiler..	420 F	Catholic
St. Teresa, College of; Kansas City, Mo. (1916).....	Sister M. Alfred Noble....	507 F	Catholic ⁴
St. Teresa, College of; Winona, Minn. (1907).....	Sister M. C. Bowe....	802 F ⁶	Catholic ⁴
St. Thomas, College of; St. Paul, Minn. (1885).....	V. Rev. J. P. Shannon....	1,484 M ⁵	Catholic ⁴
St. Thomas, University of; Houston, Tex. (1947).....	Rev. V. J. Guinan....	460 C	Catholic ⁴
St. Vincent College; Latrobe, Pa. (1846).....	Rev. Q. L. Schaut....	982 M	Catholic ⁴
St. Xavier College; Chicago, Ill. (1847).....	Mother M. Huberta....	859 F ⁶	Catholic ⁴
Salem College; Winston-Salem, N. C. (1772).....	Dale H. Gramley....	419 F ⁶	Moravian
Salem State Teachers College; See Massachusetts.....	.....	.....	.....
Salve Regina College; Newport, R. I. (1934).....	Sister Mary Hilda....	332 F	Catholic ⁴
Sam Houston State Teacher's College; Huntsville, Tex. (1879).....	Harmon Lowman....	3,471 C	State
San Diego College for Women; San Diego, Calif. (1949).....	Mother Frances Danz....	436 F	Catholic ⁴
San Diego State College; San Diego, Calif. (1897).....	Malcolm A. Love....	9,071 C	State
San Fernando Valley State College; Northridge, Calif. (1958).....	Ralph Prator....	3,889 C	State
San Francisco, University of; San Francisco, Calif. (1855).....	Rev. J. F. X. Connolly....	4,031 M ⁵	Catholic ⁴
San Francisco College for Women; San Francisco, Calif. (1930)...	Mother Catherine Parks..	425 F	Catholic ⁴
San Francisco State College; San Francisco, Calif. (1899) ⁷⁷	Glenn S. Dumke....	10,714 C	State
San Jose State College; San Jose, Calif. (1857).....	John T. Wahlquist....	12,773 C	State
Santa Clara, University of; Santa Clara & Los Gatos, Calif. (1851)	Rev. Patrick A. Donohoe	1,636 M ⁵	Catholic ⁴
Sarah Lawrence College; Bronxville, N. Y. (1926).....	Harrison Tweed ⁷⁸	404 F ⁶	Private
Savannah State College; Savannah, Ga. (1891).....	W. K. Payne....	875 C	State
Scarritt College for Christian Workers; Nashville, Tenn. (1892).....	Foye G. Gibson....	165 C	Methodist
Scranton, University of; Scranton, Pa. (1888).....	V. Rev. John J. Long....	2,073 M ⁵	Catholic ⁴
Scripps College; Claremont, Calif. (1926).....	Frederick Hard....	227 F	Private
Seattle Pacific College; Seattle, Wash. (1891).....	C. Dorr Demaray....	1,078 C	Methodist
Seattle University; Seattle, Wash. (1891).....	V. Rev. A. A. Lemieux....	2,273 C ⁸	Catholic ⁴
Seton Hall University; South Orange, N. J. (1856) ⁷⁹	(Vacant).....	9,400 M ⁷⁹	Catholic
Seton Hill College; Greensburg, Pa. (1883).....	Rev. William G. Ryan....	544 F	Catholic ⁴
Shepherd College; Shepherdstown, W. Va. (1871).....	Oliver S. Ikenberry....	793 C	State
Shimer College; Mount Carroll, Ill. (1853).....	F. Joseph Mullin....	166 C	Episcopal ⁴
Shippensburg State Teachers College. See Pennsylvania.....	.....	.....	.....
Shorter College; Rome, Ga. (1873).....	Randall H. Minor....	325 C	Baptist
Siena College; Memphis, Tenn. (1923).....	Sister Clarita....	298 F ⁶	Catholic ⁴
Siena Heights College; Adrian, Mich. (1919).....	Sister Benedicta Marie..	515 F ⁶	Catholic
Simmons College; Boston, Mass. (1899).....	William Edgar Park....	1,431 F ⁶	Private
Simpson College; Indianola, Iowa (1860).....	William E. Kerstetter....	702 C	Methodist ⁴
Sioux Falls College; Sioux Falls, S. Dak. (1883).....	Reuben P. Jeschke....	366 C	Baptist
Skidmore College; Saratoga Springs, N. Y. (1911).....	Val H. Wilson....	1,233 F	Private
Smith College; Northampton, Mass. (1871).....	Thomas C. Mendenhall....	2,345 F	Private
Snow College; Ephraim, Utah (1888) ⁸⁰	Floyd S. Holm ⁸⁰	400 C	State
South, University of the; Sewanee, Tenn. (1857).....	Edward McCrady ⁸¹	619 M	Episcopal
South Carolina, University of; Columbia, S. C. (1801).....	Robert L. Sumwalt, Jr....	4,465 C	State
South Carolina State College; Orangeburg, S. C. (1896).....	Benner C. Turner....	1,972 C	State
South Dakota, University of; Vermillion, S. Dak. (1882).....	I. D. Weeks....	2,353 C	State

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
South Dakota School of Mines & Tech.; Rapid City, S. Dak. (1885)	F. L. Partlo.....	811 C	State
South Dakota State College of A & M Arts; Brookings, S. Dak. (1881)	Hilton M. Briggs.....	3,323 C	State
Southeast Missouri State College; Cape Girardeau, Mo. (1873).....	Mark F. Scully.....	1,838 C	State
Southeastern Louisiana College; Hammond, La. (1925).....	L. H. Dyson.....	1,462 C	State
Southeastern State College; Durant, Okla. (1909).....	A. E. Shearer.....	1,473 C	State
Southern California, University of; Los Angeles, Calif. (1880).....	Norman H. Topping.....	16,596 C	Private
Southern Illinois University; Carbondale, Ill. (1869) ⁸²	Delyte W. Morris.....	8,956 C	State
Southern Methodist University; Dallas, Tex. (1911).....	Willis McD. Tate.....	5,453 C	Methodist
Southern Missionary College; Collegedale, Tenn. (1893) ⁸³	Conrad N. Rees.....	486 C	7th Day Adven.
Southern Oregon College; Ashland, Oreg. (1926).....	Elmo N. Stevenson.....	1,063 C	State
Southern State College; Magnolia, Ark. (1909).....	Dolph Camp.....	1,405 C	State
Southern University & A & M College; Scotlandville, La. (1880).....	Felton G. Clark.....	4,535 C	State
Southern Utah, College of; Cedar City, Utah (1897) ⁸⁰	Royden C. Braithwaite ⁸⁰	662 C ⁸	State
Southwest Missouri State College; Springfield, Mo. (1906).....	Roy Ellis.....	2,659 C	State
Southwest Texas State Teachers Coll.; San Marcos, Tex. (1899) ¹¹	J. G. Flowers.....	2,143 C	State
Southwestern at Memphis; Memphis, Tenn. (1848).....	Peyton N. Rhodes.....	585 C	Presbyterian
Southwestern College; Winfield, Kans. (1885).....	C. Orville Strohl.....	575 C	Methodist ⁴
Southwestern Louisiana Institute; Lafayette, La. (1898).....	Joel L. Fletcher.....	4,164 C	State
Southwestern State College; Weatherford, Okla. (1903).....	R. H. Burton.....	1,673 C	State
Southwestern University; Georgetown, Tex. (1840).....	William C. Finch.....	577 C	Methodist ⁴
Spelman College. See Atlanta University System.....			
Spring Hill College; Mobile, Ala. (1830).....	V. Rev. A. C. Smith.....	1,240 C	Catholic ⁴
Springfield College; Springfield, Mass. (1885).....	Glenn A. Olds.....	1,444 C	Private
Stanford University; Stanford, Calif. (1885) ⁹¹	J. E. W. Sterling.....	7,845 C ⁴	Private
Stephen F. Austin State College; Nacogdoches, Tex. (1923).....	Ralph S. Steen.....	1,903 C	State
Sterling College; Sterling, Kans. (1887).....	William M. McCrery.....	381 C	Presbyterian ⁴
Stetson University; DeLand & St. Petersburg, Fla. (1883).....	J. Ollie Edmunds.....	1,516 C	Baptist ⁴
Stevens Institute of Technology; Hoboken, N. J. (1870).....	Jess H. Davis.....	1,966 M	Private
Stout State College; Menomonie, Wis. (1889).....	Verne C. Fryklund.....	1,222 C	State
Suffolk University; Boston, Mass. (1906).....	Robert J. Munce.....	1,337 C	Private
Sul Ross State College; Alpine, Tex. (1921).....	Bryan Wildenthal.....	975 C	State
Susquehanna University; Selingsgrove, Pa. (1858).....	Gustave W. Weber.....	472 C	Lutheran ⁴
Swarthmore College; Swarthmore, Pa. (1864).....	Courtney Smith.....	888 C	Quaker ⁴
Sweet Briar College; Sweet Briar, Va. (1901).....	Anne G. Pannell.....	522 F	Private
Syracuse University; Syracuse & Utica, N. Y. (1870) ⁹²	William P. Tolley ¹⁸	15,370 C	Private
Talladega College; Talladega, Ala. (1867).....	Arthur D. Gray.....	321 C	Congregational ⁴
Tampa, University of; Tampa, Fla. (1931).....	David M. Delo.....	1,506 C	Private
Tarkio College; Tarkio, Mo. (1883).....	Clyde H. Canfield.....	233 C	Presbyterian ⁴
Taylor University; Upland, Ind. (1846).....	Evan H. Bergwall.....	655 C	Private
Temple University; Philadelphia, Pa. (1884).....	Robert L. Johnson.....	10,796 C	Private
Tennessee, University of; Knoxville, Tenn. (1794) ⁸⁴	C. E. Brehm.....	9,961 C	State
Tennessee Agr. & Ind. State University; Nashville, Tenn. (1912).....	Walter S. Davis.....	2,846 C	State
Tennessee Polytechnic Institute; Cookeville, Tenn. (1915).....	Everett Derryberry.....	2,775 C	State
Texas, A & M College of; College Station, Tex. (1876).....	M. T. Harrington.....	6,159 M	State
Texas, University of; Austin, Tex.....	Logan Wilson.....		State
Main University; Austin, Tex. (1883).....	H. H. Ransom ⁹¹	16,507 C	State
Dental Branch; Houston, Tex. (1905).....	John V. Olson.....	368 C	State
Medical Branch; Galveston, Tex. (1890).....	John B. Truslow.....	700 C	State
Southwestern Medical School; Dallas, Tex. (1943).....	A. J. Gill.....	398 C	State
Texas Western College; El Paso, Tex. (1913).....	Joseph R. Smiley.....	3,500 C	State
Texas Christian University; Fort Worth, Tex. (1873).....	M. E. Sadler.....	5,852 C	Disc. of Christ ⁴
Texas College of Arts & Ind.; Kingsville & Weslaco, Tex. (1917).....	Ernest H. Poteet.....	2,872 C	State
Texas Lutheran College; Seguin, Tex. (1891).....	Marcus C. Rieke.....	540 C	Lutheran
Texas Southern University; Houston, Tex. (1947).....	S. M. Nabrit.....	2,841 C	State
Texas Technological College; Lubbock, Tex. (1923).....	E. N. Jones.....	7,927 C	State
Texas Wesleyan College; Fort Worth, Tex. (1890).....	Law Sone.....	1,220 C	Methodist ⁴
Texas Western College. See Texas, University of.....			
Texas Woman's University; Denton, Tex. (1901).....	John A. Guinn.....	2,369 F	State
Thiel College; Greenville, Pa. (1866).....	Frederic B. Irvin.....	727 C	Lutheran
Tift College; Forsyth, Ga. (1849).....	Carey T. Vinzant.....	360 F	Baptist
Toledo, University of; Toledo, Ohio (1872).....	William S. Carlson.....	5,150 C	City
Tougaloo Southern Christian College; Tougaloo, Miss. (1869).....	Samuel C. Kincheloe.....	529 C	Cong. & D. of C. ⁴
Transylvania College; Lexington, Ky. (1780).....	Irvin E. Lunger.....	429 C	Disc. of Christ ⁴
Trenton State College; Trenton, N. J. (1855).....	Edwin L. Martin.....	3,344 C	State
Trinity College; Burlington, Vt. (1925).....	Sister Mary Claver.....	230 F	Catholic ⁴
Trinity College; Hartford, Conn. (1823).....	Albert C. Jacobs.....	1,338 M ⁵	Episcopal ⁴
Trinity College; Washington, D. C. (1897).....	Sister Mary Patrick.....	628 F	Catholic ⁴
Trinity University; San Antonio, Tex. (1869).....	James W. Laurie.....	1,664 C	Presbyterian ⁴
Troy State College; Troy, Ala. (1887).....	C. B. Smith.....	1,287 C	State
Tufts University; Medford & Boston, Mass. (1852) ⁴¹	Nils Y. Wessell.....	4,161 C	Private
Tulane University; New Orleans, La. (1834) ⁶⁰	Rufus C. Harris.....	6,263 Co	Private
Tulsa, University of; Tulsa, Okla. (1894).....	Ben G. Henneke.....	5,165 C	Presbyterian ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Tusculum College; Greeneville, Tenn. (1794).....	Raymond C. Rankin.....	466 C	Presbyterian ⁴
Tuskegee Institute; Tuskegee Institute, Ala. (1881).....	L. H. Foster.....	1,941 C	Private
Union College; Barbourville, Ky. (1879).....	Mahlon A. Miller.....	665 C	Methodist
Union College; Lincoln, Nebr., & Denver, Colo. (1891).....	David J. Bieber.....	721 C	7th Day Adven.
Union College & University; Schenectady & Albany, N. Y. (1795).....	Carter Davidson ⁸⁵	2,603 M ⁵	Private
Union University; Jackson, Tenn. (1825).....	Warren F. Jones.....	598 C	Baptist
U. S. Air Force Academy; Colorado Springs, Colo. (1954).....	Maj. Gen. W. S. Stone ⁸⁶	1,080 M	Federal
U. S. Coast Guard Academy; New London, Conn. (1876).....	R. Adm. F. A. Leamy ⁸⁶	575 M	Federal
U. S. Merchant Marine Academy; Kings Point, N. Y. (1938).....	Rear Adm. G. McLintock ⁸⁶	1,000 M	Federal
U. S. Military Academy; West Point, N. Y. (1802).....	Lt. Gen. G. H. Davidson ⁸⁶	2,504 M	Federal
U. S. Naval Academy; Annapolis, Md. (1845).....	R. Adm. Charles L. Nelson ⁸⁶	3,431 M	Federal
U. S. Naval Postgraduate School; Monterey, Calif. (1909).....	R. Adm. E. E. Yeomans ⁸⁶	1,374 M ⁵	Federal
Upper Iowa University; Fayette, Iowa (1857).....	Eugene E. Garbee.....	814 C	Private
Upsala College; East Orange, N. J. (1893).....	E. B. Lawson.....	1,710 C	Lutheran
Ursinus College; Collegeville, Pa. (1869).....	Donald L. Helfferich.....	839 C	Un. Ch. of Christ ⁴
Ursuline College; Louisville, Ky. (1938).....	Mother M. Cosma.....	401 F	Catholic ⁴
Ursuline College for Women; Cleveland, Ohio (1871).....	Mother Marie Sands.....	281 F	Catholic ⁴
Utah, University of; Salt Lake City, Utah (1850).....	A. Ray Olpin.....	9,225 C	State
Utah State U. of Agr. & Applied Science; Logan, Utah (1888) ⁸⁶	Daryl Chase.....	4,275 C	State
Valdosta State College; Valdosta, Ga. (1906).....	J. Ralph Thaxton.....	641 C	State
Valparaiso University; Valparaiso, Ind. (1859).....	O. P. Kretzmann.....	2,228 C	Lutheran ⁴
Vanderbilt University; Nashville, Tenn. (1873).....	Harvie Branscomb ¹⁸	3,495 C	Private
Vassar College; Poughkeepsie, N. Y. (1861).....	Sarah Gibson Blanding.....	1,360 F	Private
Vermont, University of, & State Agr. College; Burlington, Vt. (1791).....	John T. Fey.....	2,958 C	State
Villa Maria College; Erie, Pa. (1925).....	Mother M. Aurelia.....	610 F	Catholic ⁴
Villanova University; Villanova, Pa. (1842).....	Rev. John A. Klekotka.....	5,575 M ⁵	Catholic ⁴
Virginia, University of; Charlottesville, Va. (1819) ⁴⁹	Edgar F. Shannon, Jr.....	4,550 Co	State
Virginia Military Institute; Lexington, Va. (1839).....	Maj. Gen. W. H. Milton, Jr. ⁸⁶	965 M	State
Virginia Polytechnic Inst.; Blacksburg & Danville, Va. (1872) ⁸⁹	Walter S. Newman.....	4,939 C	State
Virginia State College; Petersburg & Norfolk, Va. (1882).....	Robert P. Daniel.....	2,332 C	State
Viterbo College; La Crosse, Wis. (1931).....	Sister M. Francesca.....	304 F	Catholic ⁴
Wabash College; Crawfordsville, Ind. (1832).....	Byron K. Trippet.....	592 M	Private
Wagner Lutheran College; Staten Island, N. Y. (1883).....	Richard H. Heindel.....	1,704 C	Lutheran ⁴
Wake Forest College; Winston-Salem, N. C. (1834).....	Harold W. Tribble.....	2,331 C	Baptist ⁴
Walla Walla College; College Place, Wash. (1892) ⁹³	P. W. Christian.....	1,130 C	7th Day Adven
Warburg College; Waverly, Iowa (1892).....	C. H. Becker.....	934 C	Lutheran
Washburn University of Topeka; Topeka, Kans. (1865).....	Bryan S. Stoffer.....	1,652 C	City
Washington, University of; Seattle, Wash. (1861).....	Charles E. Odegaard.....	16,202 C	State
Washington & Jefferson College; Washington, Pa. (1781).....	Boyd C. Patterson.....	706 M	Private
Washington & Lee University; Lexington, Va. (1749).....	Fred Carrington Cole.....	1,025 M	Private
Washington College; Chestertown, Md. (1782).....	Daniel Z. Gibson.....	407 C	Private
Washington Missionary College; Washington, D. C. (1904).....	William H. Shephard.....	894 C	7th Day Adven.
Washington State University; Pullman, Wash. (1890).....	C. Clement French.....	5,716 C	State
Washington University; St. Louis, Mo. (1853).....	Ethan A. H. Shepley ¹⁸	11,663 C ⁸⁸	Private
Wayland Baptist College; Plainview, Texas (1908).....	A. Hope Owen.....	524 C	Baptist
Wayne State University; Detroit, Mich. (1868).....	Clarence B. Hilberry.....	19,538 C	State
Waynesburg College; Waynesburg & Uniontown, Pa. (1849).....	Paul R. Stewart.....	828 C	Presbyterian ⁴
Webb Institute of Naval Architecture; Glen Cove, N. Y. (1889).....	R. Adm. F. E. Haebler ⁸⁷	70 M	Private
Webster College; Webster Groves, Mo. (1915).....	Sister M. F. Barberis.....	560 F	Catholic ⁴
Wellesley College; Wellesley, Mass. (1870).....	Margaret Clapp.....	1,712 F	Private
Wells College; Aurora, N. Y. (1868).....	Louis J. Long.....	377 F	Private
Wesleyan College; Macon, Ga. (1836).....	B. Joseph Martin.....	433 F ⁵	Methodist
Wesleyan University; Middletown, Conn. (1831).....	Victor L. Butterfield.....	834 M ⁵	Private
West Liberty State College; West Liberty, W. Va. (1837).....	Paul N. Elbin.....	731 C	State
West Texas State College; Canyon & Amarillo, Tex. (1910).....	James P. Cornette.....	2,814 C	State
West Virginia Institute of Technology; Montgomery, W. Va. (1895).....	William B. Axtell.....	964 C	State
West Virginia State College; Institute, W. Va. (1891).....	William J. L. Wallace.....	2,211 C	State
West Virginia University; Morgantown, W. Va. (1867).....	Elvis J. Stahr, Jr.....	5,925 C	State
West Virginia Wesleyan College; Buckhannon, W. Va. (1890).....	Stanley H. Martin.....	1,120 C	Methodist
Western Carolina College; Cullowhee, N. C. (1889).....	Paul A. Reid.....	1,301 C	State
Western College for Women; Oxford, Ohio (1853).....	Herrick B. Young.....	261 F	Private
Western Illinois University; Macomb, Ill. (1899).....	A. L. Knoblauch.....	2,829 C	State
Western Kentucky State College; Bowling Green, Ky. (1906).....	Kelly Thompson.....	2,469 C	State
Western Maryland College; Westminster, Md. (1867).....	Lowell S. Ensor.....	925 C	Methodist ⁴
Western Michigan University; Kalamazoo, Mich. (1903).....	Paul V. Sangren.....	7,312 C	State
Western Montana College of Education; Dillon, Mont. (1897).....	James E. Short.....	422 C	State
Western Reserve University; Cleveland, Ohio (1826).....	John S. Millis.....	6,668 Co	Private
Western State College of Colorado; Gunnison, Colo. (1901).....	P. P. Mickelson.....	949 C	State
Western Washington Coll. of Education; Bellingham, Wash. (1899).....	W. W. Haggard.....	2,183 C	State
Westmer College; Le Mars, Iowa (1890).....	H. H. Kafas.....	543 C	Evan. Un. Breth.
Westminster College; Fulton, Mo. (1851).....	Robert L. D. Davidson.....	500 M	Presbyterian
Westminster College; New Wilmington, Pa. (1852).....	Will W. Orr.....	1,221 C	Presbyterian ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Westminster College; Salt Lake City, Utah (1875)	Frank E. Duddy, Jr.	377 C	(71)
Westminster Theological Seminary; Philadelphia, Pa. (1929)	Cornelius Van Til ³⁸	80 M	Private
Westmont College; Santa Barbara, Calif. (1940)	Roger J. Voskuyl	403 C	Private
Wheaton College; Norton, Mass. (1834)	A. Howard Meneely	675 F	Private
Wheaton College; Wheaton, Ill. (1860)	V. Raymond Edman	1,806 C	Private
Wheelock College; Boston, Mass. (1888)	Frances Mayfarth	364 F	Private
Whitman College; Walla Walla, Wash. (1859)	Louis B. Perry	797 C	Private
Whittier College; Whittier, Calif. (1901)	Paul S. Smith	1,128 C	Quaker ⁴
Whitworth College; Spokane, Wash. (1890)	Frank F. Warren	1,310 C	Presbyterian ⁴
Wichita, University of; Wichita, Kans. (1895)	Harry F. Corbin	5,212 C	City ⁵
Wilkes College; Wilkes-Barre, Pa. (1933)	Eugene S. Farley	1,691 C	Private
Willamette University; Salem, Oreg. (1842)	G. Herbert Smith	1,165 C	Methodist ⁴
William and Mary, College of; Williamsburg, Va. (1693)	A. D. Chandler	5,964 C	State
William Jewell College; Liberty, Mo. (1849)	Walter P. Binns	826 C	Baptist ⁴
William Smith College. See Hobart & William Smith Colleges.			
Williams College; Williamstown, Mass. (1793)	James P. Baxter, 3rd	1,140 M	Private
Willimantic State Teachers College; Willimantic, Conn. (1889)	J. Eugene Smith	505 C	State
Wilmington College; Wilmington, Ohio (1870)	W. Brooke Morgan, Jr. ²⁵	668 C	Quaker
Wilson College; Chambersburg, Pa. (1869)	Paul S. Havens	485 F	Presbyterian ⁴
Winona State College; Winona, Minn. (1858)	Nels Minné	957 C	State
Winthrop College; Rock Hill, S. C. (1886)	Henry R. Sims	1,233 F	State
Wisconsin, University of; Madison, Wis. (1848)	Conrad A. Elvehjem	26,678 C ³⁸	State
Milwaukee Campus	J. Martin Klotzsch ²¹	6,067 C	State
Wisconsin State College; Eau Claire, Wis. (1916)	William R. Davies	1,873 C	State
Wisconsin State College; La Crosse, Wis. (1909)	Rexford S. Mitchell	1,733 C	State
Wisconsin State College; Oshkosh, Wis. (1871)	(Vacant)	1,863 C	State
Wisconsin State College; Platteville, Wis. (1866)	Bjarne R. Ullsvik	1,537 C	State
Wisconsin State College; River Falls, Wis. (1874)	E. H. Kleinpell	1,254 C	State
Wisconsin State College; Stevens Point, Wis. (1894)	William C. Hansen	2,042 C	State
Wisconsin State College; Superior, Wis. (1896)	Jim D. Hill	1,136 C	State
Wisconsin State College; Whitewater, Wis. (1868)	Robert C. Williams	1,449 C	State
Wittenberg University; Springfield, Ohio (1845)	Clarence C. Stoughton	2,247 C	Lutheran
Wofford College; Spartanburg, S. C. (1854)	Charles F. Marsh	662 M	Methodist
Woodstock College; Woodstock, Md. (1867)	Rev. Edward J. Sponga	240 M	Catholic ⁴
Wooster, College of; Wooster, Ohio (1866)	Howard F. Lowry	1,270 C	Presbyterian
Worcester Polytechnic Institute; Worcester, Mass. (1865)	Arthur B. Bronwell	1,081 M	Private
Wyoming, University of; Laramie, Wyo. (1887)	G. D. Humphrey	3,464 C	State
Xavier University; Cincinnati, Ohio (1831)	V. Rev. P. L. O'Connor	3,726 M ⁵	Catholic ⁴
Xavier University of Louisiana; New Orleans, La. (1925)	Sister M. Josephina	1,073 C	Catholic ⁴
Yale University; New Haven, Conn. (1701)	A. Whitney Griswold	7,773 M ⁵	Private
Yankton College; Yankton, S. Dak. (1881)	Adrian Rondileau	349 C	Congregational ⁴
Yeshiva University; New York, N. Y. (1886)	Samuel Belkin	4,000 Co	Jewish ⁴
Youngstown University; Youngstown, Ohio (1908)	Howard W. Jones	5,694 C	Private

¹ President unless otherwise indicated.² M—male; F—female; C—coeducational; Co—co-ordinate; i.e., separate schools for men and women.³ Control unless otherwise indicated.⁴ Affiliated but not actually controlled.⁵ Enrollment includes women admitted for special courses and/or graduate work.⁶ Enrollment includes men admitted for special courses and/or graduate work.⁷ Other campuses: Birmingham, Gadsden, Huntsville, Mobile, Montgomery, and Selma, Ala.⁸ Enrollment for winter 1958-59.⁹ Includes New York State College of Ceramics, contract unit of State University of New York and integral part of Alfred University.¹⁰ Enrollment is for day students only.¹¹ Information is for spring 1958.¹² Co-instructional.¹³ Information is for spring 1957.¹⁴ Branches: Bryan, Fostoria, Fremont, and Sandusky, Ohio.¹⁵ Jewish sponsored; nonsectarian program.¹⁶ Other campuses: Mt. St. Francis and Dubuque, Iowa.¹⁷ Pembroke College is undergraduate school for women of Brown University.¹⁸ Chancellor.¹⁹ Duplicates deducted.²⁰ Director.²¹ Provost.²² Other campuses: San Dimas and Pomona, Calif., (both male only).²³ Reorganized in 1952.²⁴ Affiliated with Congregational, Baptist, and Episcopal churches.²⁵ Acting president.²⁶ Rector.²⁷ Dean.²⁸ 11 privately endowed and 4 state-supported units.²⁹ Douglass College is constituent school for women of Rutgers University.³⁰ Other campuses: Teaneck and Madison, N. J.³¹ Administrative vice president.³² Other campuses: North Plainfield and Camden, N. J.³³ Chairman of administrative council.³⁴ Harvard College is for men only; Radcliffe College (q.v.) is for women only; most of Harvard graduate schools are coeducational.³⁵ Enrollment is for Oct. 1958 and includes 1,618 Radcliffe students.³⁶ Hobart College, founded 1822, is for men only; William Smith College, founded 1908, is for women only.³⁷ Hobart College is affiliated with Episcopal Church.³⁸ Chartered as public institution but operates as private institution.³⁹ Enrollment for fall 1958.⁴⁰ Other campuses: East Chicago, Ft. Wayne, Gary, Jeffersonville, Kokomo, Richmond, South Bend, and Vincennes, Ind.⁴¹ Formerly Polytechnic Institute of Puerto Rico. Other campus: Arebibo.⁴² Jackson College is constituent school for women of Tufts University.⁴³ Other campus: Los Angeles, Calif.⁴⁴ Enrollment for New York campus only. Rabbinical School and Cantors Institute are male only.⁴⁵ Enrollment includes full-time regular students only.⁴⁶ Other campuses: Ashtabula, Canton, and Cleveland, Ohio.⁴⁷ Other campuses: Ashland and Covington, Ky.⁴⁸ Other campuses: Brookville, Mitchell Air Force Base, and Suffolk County Air Force Base, L. I., N. Y.⁴⁹ Other campus: New Orleans, La.⁵⁰ Mary Washington College is constituent school for women of University of Virginia.⁵¹ Professional schools located at Baltimore; Maryland State College located at Princess Anne.⁵² Division of University of Maryland.⁵³ Other campuses: Dayton, Hamilton, Norwood, and Piqua, Ohio.⁵⁴ Other campuses: Dearborn and Flint, Mich.⁵⁵ Other campuses: Duluth and St. Paul, Minn.⁵⁶ Other campuses: Mankato, Minn., and Mequon, Wis.⁵⁷ New (Swedenborgian) Church.⁵⁸ Enrollment does not include students at Community Colleges, which

Academic Degree Abbreviations

Source: *American Universities and Colleges*, 1956 pub. by American Council on Education.

A.B. Bachelor of Arts	E.Met. Engineer of Metallurgy
Ae.E. Aeronautical Engineer	G.N. Graduate Nurse
A.M. Master of Arts	G.Ph. Graduate in Pharmacy
A.M.T. Master of Arts in Teaching	J.D. Doctor of Jurisprudence
B.A. Bachelor of Arts	J.S.D. Doctor of Science of Law
B.Ag. Bachelor of Agriculture	L.H.D. Doctor of Humane Letters
B.App.Arts Bachelor of Applied Arts	Litt.M. Master of Letters
B.Arch. Bachelor of Architecture	LL.B. Bachelor of Laws
B.B.A. Bachelor of Business Administration	LL.D. Doctor of Laws
B.B.S. Bachelor of Business Science	LL.M. Master of Laws
B.C.E. Bachelor of Civil Engineering	M.A. Master of Arts
B.Ch.E. Bachelor of Chemical Engineering	M.Aero.E. Master of Aeronautical Engineering
B.D. Bachelor of Divinity	M.B.A. Master of Business Administration
B.Dr.Art Bachelor of Dramatic Art	M.C.E. Master of Civil Engineering
B.E. Bachelor of Education, Bachelor of Engineering or Bachelor of Expression	M.C.S. Master of Commercial Science
B.E.E. Bachelor of Electrical Engineering	M.D. Doctor of Medicine
B.F.A. Bachelor of Fine Arts	M.E. Mechanical Engineer
B.J. Bachelor of Journalism	M.Ed. Master of Education
B.L. Bachelor of Letters	Med.Sc.D. Doctor of Medical Science
B.L.S. Bachelor of Library Science	M.Eng. Mining Engineer
B.Litt. Bachelor of Literature	M.F. Master of Forestry
B.Med. Bachelor of Medicine	M.F.A. Master of Fine Arts
B.Mus. Bachelor of Music	M.Int.Med. Master of Internal Medicine
B.N. Bachelor of Nursing	M.L.S. Master of Library Science
B.Pharm. Bachelor of Pharmacy	M.M. Master of Music
B.Ph. Bachelor of Philosophy	M.M.E. Master of Mechanical Engineering or Master of Music Education
B.R.E. Bachelor of Religious Education	M.Mus. Master of Music
B.S. Bachelor of Science	M.N. Master of Nursing
B.Th. Bachelor of Theology	M.P.A. Master of Public Administration
C.E. Civil Engineer	M.P.H. Master of Public Health
Chem.E. Chemical Engineer	M.R.E. Master of Religious Education
C.E. Doctor of Civil Engineering	M.S. Master of Science
C.C.S. Doctor of Commercial Science	M.S.W. Master of Social Work
D.D. Doctor of Divinity	M.Th. Master of Theology
D.D.S. Doctor of Dental Surgery	O.D. Doctor of Optometry
D.M.D. Doctor of Dental Medicine	Phar.D. Doctor of Pharmacy
D.O. Doctor of Osteopathy	Ph.C. Pharmaceutical Chemist
D.M.S. Doctor of Medical Science	Ph.D. Doctor of Philosophy
D.P.A. Doctor of Public Administration	Ph.G. Graduate in Pharmacy
D.P.H. Doctor of Public Health	Ph.M. Master of Philosophy
D.R.E. Doctor of Religious Education	Sc.D. Doctor of Science
D.S.W. Doctor of Social Welfare	S.J.D. Doctor of Juridical Science
D.V.M. Doctor of Veterinary Medicine	S.Sc.D. Doctor of Social Science
Ed.D. Doctor of Education	S.T.B. Bachelor of Sacred Theology
E.E. Electrical Engineer	S.T.D. Doctor of Sacred Theology
E.M. Engineer of Mines	S.T.M. Master of Sacred Theology

Footnotes for Colleges and Universities (contd.)

- are locally sponsored by State University of New York.
- ¹ Acting dean.
- ² Women only at Park Ave. building; coeducational at Bronx building.
- ³ Newcomb College is constituent school for women of Tulane Univ.
- ⁴ Other campuses: Mansfield, Marion, and Newark, Ohio.
- ⁵ Branches: Chillicothe, Ironton, Lancaster, Martins Ferry, Portsmouth, and Zanesville, Ohio.
- ⁶ Enrollment at main campus only.
- ⁷ Other campuses: Abington, Albion, Altoona, DuBois, Erie, Harrisburg, Hazleton, McKeesport, New Castle, New Kensington, Pottsville, Scranton, Wilkes-Barre, Wyomissing, and York, Pa.
- ⁸ Enrollment limited to students from Christian Science families.
- ⁹ Other campuses: Mayaguez and San Juan, P. R.
- ¹⁰ Extension centers: Ft. Wayne, Hammond, Indianapolis, and Michigan City, Ind.
- ¹¹ Faculty of Arts and Sciences of Harvard University is also faculty of Radcliffe. In all other respects
- Radcliffe is independent institution.
- ¹² Radford College is Women's Division of Virginia Polytechnic Institute.
- ¹³ Also maintains Hartford Graduate Center at East Windsor Hill, Conn.
- ¹⁴ Affiliated with Congregational, Methodist, and Presbyterian churches.
- ¹⁵ Female only at Troy; coeducational at Albany and evening division.
- ¹⁶ College of Arts and Sciences at New Brunswick is for men only; Douglass College is for women only; all other colleges, including campuses at Newark and Camden, N. J., are coeducational.
- ¹⁷ Parks College of Aeronautical Technology, East St. Louis, Ill., is branch.
- ¹⁸ Other campuses: Denver, Colo., and Kansas City, Kans.
- ¹⁹ Admission restricted to candidates for priesthood.
- ²⁰ Other campuses: Modesto, Santa Rosa, and Vallejo, Calif.
- ²¹ Other campuses: Jersey City, Newark, and Paterson, N. J.
- ²² Male only at South Orange campus; coeducational at other campuses.
- ²³ Snow College and College of Southern Utah are branches of Utah State University of Agriculture and Applied Science.
- ²⁴ Vice chancellor.
- ²⁵ Other campuses: Alton and East St. Louis, Ill.
- ²⁶ Other campus: Orlando, Fla.
- ²⁷ Other campuses: Martin, Memphis, and Nashville, Tenn.
- ²⁸ President of Union College and chancellor of Union University.
- ²⁹ Superintendent.
- ³⁰ Administrator.
- ³¹ Presiding Fellow.
- ³² Other campuses: Hartford, Stamford, Torrington, and Waterbury, Conn.
- ³³ Other campus: Sault Ste. Marie.
- ³⁴ Other campuses: Pacific Grove, Calif., and Stuttgart, Germany.
- ³⁵ Other campus: Utica, N. Y.
- ³⁶ Other campuses: Portland, Oreg., and Anacortes, Wash.
- ³⁷ Formerly General Assembly's Training School for Lay Workers.
- ³⁸ Information is for fall 1957.

GEOGRAPHY

Miscellaneous Data for the United States

Source: U. S. Geological Survey.

Highest point: Mount McKinley, Alaska	20,320 ft.
Lowest point: Death Valley, Calif.	282 ft. below sea level
Most northern point: Point Barrow, Alaska	71° 23' 30" N. lat.
Most southern point: KaLae, on island of Hawaii	18° 54' N. lat.
Most eastern point: West Quoddy Head, Maine	66° 57' W. long.
Most western point: Attu Island, Alaska	172° 27' E. long.
Places farthest apart: Attu, Alaska, to Key Largo, Florida	5,509 mi.
Geographic center: In Butte County, South Dakota*	44° 59' N. lat. 103° 46' W. long.
Boundaries: Between Alaska and Canada	1,538 mi.
Between the 48 contiguous states and Canada (including Great Lakes)	3,987 mi.
Between the United States and Mexico	2,013 mi.

* 14 miles east of junction of Wyoming, South Dakota and Montana borders.

Mountain Peaks in the U. S. 14,000 Feet or More Above Sea Level

Source: U. S. Geological Survey.

Name of summit	State	Height, ft.	Name of summit	State	Height, ft.	Name of summit	State	Height, ft.
McKinley	Alaska	20,320	Longs	Colo.	14,255	Eolus (Aeolus)	Colo.	14,086
North Peak	Alaska	19,370	Quandary	Colo.	14,252	Snowmass	Colo.	14,077
*St. Elias	Alaska	18,008	Wilson	Colo.	14,246	Columbia	Colo.	14,073
Foraker	Alaska	17,395	White	Calif.	14,246	*Augusta	Alaska	14,070
Blackburn	Alaska	16,523	North Palisade	Calif.	14,242	Culebra	Colo.	14,069
Bona	Alaska	16,421	Cameron	Colo.	14,238	Missouri	Colo.	14,067
Sanford	Alaska	16,208	Shavano	Colo.	14,229	Sunlight	Colo.	14,060
*Vancouver	Alaska	15,700	Princeton	Colo.	14,197	Split	Calif.	14,058
*Fairweather	Alaska	15,300	Belford	Colo.	14,197	Red Cloud	Colo.	14,050
*Hubbard	Alaska	14,950	Yale	Colo.	14,196	Handies	Colo.	14,049
Bear	Alaska	14,850	Creston Needle	Colo.	14,191	Bierstadt	Colo.	14,046
Hunter	Alaska	14,580	Russell	Calif.	14,190	Humboldt	Colo.	14,044
Brown Tower	Alaska	14,530	Bross	Colo.	14,169	Langley	Calif.	14,042
*Alverstone	Alaska	14,500	Sill	Calif.	14,162	Middle Palisade	Calif.	14,040
Whitney	Calif.	14,495	Shasta	Calif.	14,162	Little Bear	Colo.	14,040
Elbert	Colo.	14,431	El Diente	Colo.	14,159	Sherman	Colo.	14,037
Harvard	Colo.	14,420	Maroon	Colo.	14,158	Stewart	Colo.	14,032
Massive	Colo.	14,418	Teguache	Colo.	14,155	Muir	Calif.	14,025
Rainier	Wash.	14,410	Oxford	Colo.	14,153	Tyndall	Calif.	14,025
Williamson	Calif.	14,384	Point Success	Wash.	14,150	Sunshine	Colo.	14,018
La Plata	Colo.	14,340	Sneffels	Colo.	14,150	Wetterhorn	Colo.	14,017
Blanca	Colo.	14,317	Democrat	Colo.	14,142	Wilson	Colo.	14,017
Uncompahgre	Colo.	14,301	Capitol	Colo.	14,137	San Luis	Colo.	14,014
Crestone	Colo.	14,291	Lindsey	Colo.	14,125	Wrangell	Alaska	14,006
Lincoln	Colo.	14,284	Liberty Cap	Wash.	14,112	Huron	Colo.	14,005
Grays	Colo.	14,274	Pikes Peak	Colo.	14,110	Barnard	Calif.	14,003
Antero	Colo.	14,269	Kit Carson	Colo.	14,100	Pyramid	Colo.	14,000
Torreys	Colo.	14,264	Windom	Colo.	14,091	Grizzly	Colo.	14,000
Evans	Colo.	14,260				North Maroon	Colo.	14,000
Castle	Colo.	14,259						

* Mountains whose summits are on the international boundary between Canada and Alaska.

The Continental Divide

The Continental Divide is a ridge of high ground which runs irregularly north and south through the Rocky Mountains and separates eastward-flowing from westward-

flowing streams. The waters which flow eastward empty into the Atlantic Ocean, chiefly by way of the Gulf of Mexico; those which flow westward empty into the Pacific.

Highest, Lowest, and Average Altitudes in the United States

Source: U. S. Geological Survey.

State	Average elevation, ft.	Highest point	Elevation, ft.	Lowest point	Elevation, ft.
Alabama.....	500	Cheaha Mountain.....	2,407	Gulf of Mexico.....	Sea level
Alaska.....	1,900	Mount McKinley.....	20,320	Pacific Ocean†.....	Sea level
Arizona.....	4,100	Humphreys Peak.....	12,670	Colorado River.....	100
Arkansas.....	650	Blue Mountain & Magazine Mountain.....	2,800	Ouachita River.....	55
California.....	2,900	Mount Whitney.....	14,495	Death Valley.....	282*
Colorado.....	6,800	Mount Elbert.....	14,431	Arkansas River.....	3,350
Connecticut.....	500	N. Bdy.-Mt. Frissell.....	2,380	Long Island Sound.....	Sea level
Delaware.....	60	Ebright Road.....	450	Atlantic Ocean.....	Sea level
D. C.....	150	Tenleytown.....	420	Potomac River.....	Sea level
Florida.....	100	Sec. 30, T6N, R20W.....	345	Atlantic Ocean.....	Sea level
Georgia.....	600	Brasstown Bald.....	4,784	Atlantic Ocean.....	Sea level
Hawaii.....		Mauna Kea.....	13,796	Pacific Ocean.....	Sea level
Idaho.....	5,000	Borah Peak.....	12,662	Snake River.....	720
Illinois.....	600	Charles Mound.....	1,241	Mississippi River.....	279
Indiana.....	700	Greensfork Township.....	1,240	Ohio River.....	320
Iowa.....	1,100	In Osceola County.....	1,675	Mississippi River.....	480
Kansas.....	2,000	In T15S R43W.....	4,135	Verdigris River.....	700
Kentucky.....	750	Black Mountain.....	4,145	Mississippi River.....	257
Louisiana.....	100	Driskill Mountain.....	535	New Orleans.....	5*
Maine.....	600	Mount Katahdin.....	5,268	Atlantic Ocean.....	Sea level
Maryland.....	350	Backbone Mountain.....	3,360	Atlantic Ocean.....	Sea level
Massachusetts.....	500	Mount Greylock.....	3,491	Atlantic Ocean.....	Sea level
Michigan.....	900	In Baraga County.....	1,980	Lake Erie.....	572
Minnesota.....	1,200	Misquah Hills.....	2,230	Lake Superior.....	602
Mississippi.....	300	Woodall Mountain.....	806	Gulf of Mexico.....	Sea level
Missouri.....	800	Taum Sauk Mountain.....	1,772	St. Francis River.....	230
Montana.....	3,400	Granite Peak.....	12,799	Kootenai River.....	1,800
Nebraska.....	2,600	Johnson Township.....	5,424	Southeast corner of State.....	840
Nevada.....	5,500	Boundary Peak, White Mountains.....	13,145	Colorado River.....	470
New Hampshire.....	1,000	Mount Washington.....	6,288	Atlantic Ocean.....	Sea level
New Jersey.....	250	High Point.....	1,803	Atlantic Ocean.....	Sea level
New Mexico.....	5,700	Wheeler Peak.....	13,160	Red Bluff Reservoir.....	2,817
New York.....	1,000	Mount Marcy.....	5,344	Atlantic Ocean.....	Sea level
North Carolina.....	700	Mount Mitchell.....	6,684	Atlantic Ocean.....	Sea level
North Dakota.....	1,900	White Butte.....	3,530	Red River.....	750
Ohio.....	850	Campbell Hill.....	1,550	Ohio River.....	433
Oklahoma.....	1,300	Black Mesa.....	4,978	Red River.....	300
Oregon.....	3,300	Mount Hood.....	11,245	Pacific Ocean.....	Sea level
Pennsylvania.....	500	Mt. Davis, Negro Mountains.....	3,213	Delaware River.....	Sea level
Rhode Island.....	200	Jerimoth Hill.....	812	Atlantic Ocean.....	Sea level
South Carolina.....	350	Sassafras Mountain.....	3,560	Atlantic Ocean.....	Sea level
South Dakota.....	2,200	Harney Peak.....	7,242	Big Stone Lake.....	962
Tennessee.....	900	Clingmans Dome.....	6,642	Mississippi River.....	182
Texas.....	1,700	Guadalupe Peak.....	8,751	Gulf of Mexico.....	Sea level
Utah.....	6,100	Kings Peak.....	13,498	Beaverdam Creek.....	2,000
Vermont.....	1,000	Mount Mansfield.....	4,393	Lake Champlain.....	95
Virginia.....	950	Mount Rogers.....	5,720	Atlantic Ocean.....	Sea level
Washington.....	1,700	Mount Rainier.....	14,410	Pacific Ocean.....	Sea level
West Virginia.....	1,500	Spruce Knob.....	4,860	Potomac River.....	240
Wisconsin.....	1,050	Rib Mountain.....	1,941	Lake Michigan.....	581
Wyoming.....	6,700	Gannett Peak.....	13,785	Belle Fourche River.....	3,100

* Below sea level. † Others are Bering Sea and Arctic Ocean.

Forest Resources of the United States

Source: U. S. Forest Service.

U. S. Forest Land in Acres, 1953

(Alaska and Hawaii not included)

Old growth	46,055,000
Young growth saw timber	132,561,000
Pole timber stands	169,408,000
Seedling and sapling stands	94,709,000
Nonstocked and other areas	41,607,000
Total, commercial forest land ..	484,340,000
Noncommercial forest	163,346,000
Total, all forest land	647,686,000

Nearly 1/3 of the U. S. is forest land including over 800 different kinds of trees. Commercial areas include land capable of producing timber of commercial quantity and quality, and available now or prospectively for such use. Almost all the old-growth forest is in the West. Noncommercial areas include alpine, semidesert, chaparral and other forest types of low timber productivity, though much of it is important for watershed protection.

Rivers of the U. S.

Source: U. S. Geological Survey.

(300 or more miles long)

ALABAMA (315 mi.): From junction of Tallapoosa R. and Coosa R. in Alabama to Mobile R.

ALLEGHENY (325 mi.): From Potter Co. in Pennsylvania to junction with Monongahela R. at Pittsburgh to form Ohio R.

ALTAMAHA-OCMULGEE (392 mi.): From junction of Yellow R. and South R., Newton Co. in Ga. to Atlantic Ocean.

APALACHICOLA-CHATTAHOOCHEE (500 mi.): From Towns Co. in Ga. to Gulf of Mexico in Fla.

ARKANSAS (1,450 mi.): From Lake Co. in Colorado to Mississippi R. in Arkansas.

BIG BLACK (330 mi.): From Webster Co. in Mississippi to Mississippi R.

BIG HORN (336 mi.): From junction of Popo Agie R. and Wind R. in Wyoming to Yellowstone R. in Montana.

BRAZOS (870 mi.): From junction of Salt Fork and Double Mountain Fork in Texas to Gulf of Mexico.

CANADIAN (906 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CEDAR (329 mi.): From south central Minnesota to Iowa R. in Iowa.

CIMARRON (600 mi.): From Colfax Co. in New Mexico to Arkansas R. in Okla.

CLARK FORK-PEND OREILLE (505 mi.): From Silver Bow Co. in Mont. to Columbia R. in British Columbia.

COLORADO (1,450 mi.): From Grand Co. in Colorado to Gulf of California.

COLORADO (840 mi.): From Dawson Co. in Texas to Matagorda Bay.

COLUMBIA (1,214 mi.): From Columbia Lake in British Columbia to Pacific Ocean (entering between Oregon and Washington).

COLVILLE (350 mi.): From Brooks Range in Alaska to Beaufort Sea.

CONNECTICUT (407 mi.): From Connecticut Lakes in New Hampshire to Long Island Sound in Connecticut.

CUMBERLAND (687 mi.): From junction of forks in Harlan Co. in Kentucky to Ohio R.

DES MOINES (327 mi.): From Humboldt Co. in Iowa to Mississippi R.

GILA (630 mi.): From southwest New Mexico to Colorado R. in Arizona.

GREEN (360 mi.): From Lincoln Co. in Kentucky to Ohio R. in Kentucky.

GREEN (730 mi.): From Sublette Co. in Wyoming to Colorado R. in Utah.

HUDSON (306 mi.): From Essex Co. in New York to Upper New York Bay (entering between New York and New Jersey).

JAMES (sometimes called **DAKOTA**) (710 mi.): From Wells Co. in North Dakota to Missouri R. in South Dakota.

JAMES (340 mi.): From junction of Jackson R. and Cowpasture R. in Virginia to Chesapeake Bay.

KANAWHA-NEW (352 mi.): From junction of North and South Forks of New R. in North Carolina to Ohio R.

KOYUKUK (500 mi.): From Brooks Range in Alaska to Yukon R.

KUSKOKWIM (550 mi.): From Alaska Range in Alaska to Kuskokwim Bay.

LITTLE COLORADO (300 mi.): From Apache Co. in Arizona to Colorado R.

LITTLE MISSOURI (560 mi.): From northeast Wyoming to Missouri R. in North Dakota.

MILK (625 mi.): From junction of forks in Alberta Province to Missouri R.

MINNESOTA (332 mi.): From Big Stone Lake between Minnesota and South Dakota to Mississippi R. at St. Paul.

MISSISSIPPI (2,348 mi.): From Lake Itasca in Minn. to mouth of Southwest Pass.

MISSOURI (2,466 mi.): From junction of Jefferson R. and Madison R. in Montana to Mississippi R. near St. Louis.

MOBILE-ALABAMA-COOSA (639 mi.): From junction of Etowah R. and Oostanaula R. in Georgia to Mobile Bay.

NEOSHO (460 mi.): From Morris Co. in Kansas to Arkansas R. in Oklahoma.

NIOBRARA (431 mi.): From Niobrara Co. in Wyoming to Missouri R. in Nebraska.

NOATAK (350 mi.): From Brooks Range in Alaska to Kotzebue Sound.

NORTH CANADIAN (760 mi.): From Union Co. in New Mexico to Canadian R. in Oklahoma.

NORTH PLATTE (618 mi.): From Jackson Co. in Colorado to junction with So. Platte R. in Nebraska to form Platte R.

NUECES (338 mi.): From near Edwards-Real Co. border in Texas to Nueces Bay.

OHIO (981 mi.): From junction of Allegheny R. and Monongahela R. at Pittsburgh to Mississippi R. between Illinois and Kentucky.

OSAGE (500 mi.): From junction of Elm Creek and Onion Creek in Kansas to Missouri R. in Missouri.

OUACHITA (605 mi.): From Polk Co. in Arkansas to Red R. in Louisiana.

PEARL (490 mi.): From Neshoba Co. in Mississippi to Gulf of Mexico between Mississippi and Louisiana.

PECOS (735 mi.): From Mora Co. in New Mexico to Rio Grande in Texas.

PEE DEE-YADKIN (435 mi.): From Watauga Co. in N. C. to Winyah Bay in S. C.

PLATTE (310 mi.): From junction of North Platte R. and South Platte R. in Nebraska to Missouri R. below Omaha.

PORCUPINE (450 mi.): From Yukon Territory, Canada, to Yukon R. in Alaska.

POWDER (375 mi.): From junction of forks in Kaufman Co. in Wyoming to Yellowstone R. in Montana.

RED (1,018 mi.): From junction of forks in Tillman Co. in Oklahoma to Mississippi R. in Louisiana.

RED (officially called **RED RIVER OF THE NORTH**) (545 mi.): From junction of Otter Tail R. and Bois de Sioux R. in Minnesota to Lake Winnipeg in Manitoba.

REPUBLICAN (445 mi.): From junction of North Fork and Arikaree R. in Nebraska to junction with Smoky Hill R. in Kansas to form Kansas R.

RIO GRANDE (1,885 mi.): From San Juan Co. in Colorado to Gulf of Mexico.

ROANOKE (380 mi.): From junction of forks in Montgomery Co. in Virginia to Albemarle Sound in North Carolina.

ROCK (300 mi.): From Washington Co. in Wisconsin to Mississippi R. in Illinois.

SABINE (380 mi.): From junction of forks in Hunt Co. in Texas to Sabine Lake between Texas and Louisiana.

SACRAMENTO (382 mi.): From Siskiyou Co. in California to Suisun Bay.

SAINT FRANCIS (425 mi.): From Iron Co. in Missouri to Mississippi R. in Ark. **SALMON** (420 mi.): From Custer Co. in Idaho to Snake R.

SAN JOAQUIN (350 mi.): From junction of forks in Madera Co. in California to Suisun Bay.

SAN JUAN (360 mi.): From Archuleta Co. in Colorado to Colorado R. in Utah.

SANTEE-WATEREE-CATAWBA (538 mi.): From McDowell Co. in N. C. to Atlantic Ocean in S. C.

SAVANNAH (314 mi.): From junction of Tugaloo R. and Seneca R. in South Carolina to Atlantic Ocean between Georgia and South Carolina.

SMOKY HILL (540 mi.): From Cheyenne Co. in Colorado to junction with Republican R. in Kansas to form Kansas R.

SNAKE (1,038 mi.): From Ocean Plateau in Wyoming to Columbia R. in Wash.

SOUTH PLATTE (424 mi.): From Park Co. in Colorado to junction with North Platte R. in Nebraska to form Platte R.

SUSQUEHANNA (444 mi.): From Otsego Co. in New York to Chesapeake Bay in Maryland.

TALLAHATCHIE (301 mi.): From Tippah Co. in Mississippi to junction with Yazoo R. to form Yazoo R.

TANANA (800 mi.): From Wrangell Mts. in Yukon Territory, Canada, to Yukon R. in Alaska.

TENNESSEE (652 mi.): From junction of Holston R. and French Broad R. near Knoxville to Ohio R. in Kentucky.

TOMBIGBEE (409 mi.): From junction of forks near Amory, Mississippi, to Alabama R. in Alabama.

TRINITY (360): From junction of forks in Kaufman Co. in Texas to Galveston Bay.

WABASH (475 mi.): From Darke Co. in Ohio to Ohio R. between Ill. and Ind.

WASHITA (500 mi.): From Hemphill Co. in Texas to Red R. in Oklahoma.

WHITE (690 mi.): From Madison Co. in Arkansas to Mississippi R.

WISCONSIN (430 mi.): From Vilas Co. in Wisconsin to Mississippi R.

YELLOWSTONE (671 mi.): From Park Co. in Wyoming to Missouri R. in N. Dak.

YUKON (1,800 mi.): From junction of Lewes R. and Pelly R. in Yukon Territory, Canada, to Bering Sea in Alaska.

Coastline of the United States

Source: U. S. Coast and Geodetic Survey.

State	Lengths in statute miles		
	General coastline*	Tidal shoreline, general†	Tidal shoreline, detailed‡
Maine.....	228	676	3,478
New Hampshire.....	13	14	131
Massachusetts.....	192	453	1,519
Rhode Island.....	40	156	384
Connecticut.....	...	96	618
New York.....	127	470	1,850
New Jersey.....	130	398	1,792
Pennsylvania.....	...	89	...
Delaware.....	28	79	381
Maryland.....	81	452	3,190
Virginia.....	112	567	3,315
North Carolina.....	301	1,030	3,375
South Carolina.....	187	758	2,876
Georgia.....	100	603	2,344
Florida (Atlantic).....	399	618	3,035
Total Atlantic coast.....	1,888	6,370	28,377
Florida (Gulf).....	798	1,658	5,391
Alabama.....	53	199	607
Mississippi.....	44	155	359
Louisiana.....	397	985	7,721
Texas.....	367	1,100	3,359
Total Gulf coast.....	1,659	4,097	17,437
California.....	840	1,190	3,427
Oregon.....	296	312	1,410
Washington.....	157	908	3,026
Total Pacific coast.....	1,293	2,410	7,863
Alaska.....	6,640	15,132	33,904
Hawaii.....	775	900	1,092
Total U. S.....	12,255	28,909	88,673

* Figures are lengths of general outline of seacoast. Measurements made with unit measure of 30 minutes of latitude on charts as near scale of 1:1,200,000 as possible. Shoreline of bays and sounds is included to point where they narrow to width of unit measure, and distance across at such point is included. † Measurements made with unit measure of 3 statute miles on charts of 1:200,000 and 1:400,000 scale when available. Shoreline of bays, sounds and other bodies of water included to point where they narrow to width of 3 statute miles, and distance across at such point is included. ‡ Figures obtained in 1939-40 with recording measure on largest scale maps and charts then available. Shoreline of bays, sounds and other bodies of water included to head of tide-water, or to point where they narrow to width of 100 feet.

WEATHER AND CLIMATE

Devastating North Atlantic Hurricanes of the 20th Century

The following is a selected list of North Atlantic hurricanes based on casualties, damage and general public interest. Facts about each storm are taken from Weather Bureau records, although in some cases only estimates of wind speed are available. Data given in this list pertain only to U. S. land areas except where indicated otherwise.

Date	Areas hardest hit	Land stations with highest wind speed	Deaths (U. S. only)	Est. damage (millions)	Remarks
1900, Sept. 8.....	Galveston, Tex.	Galveston, Tex. (120* mph)	6,000	\$ 20	Damage due to both winds and storm wave. Galveston Is. inundated.
1909, Sept. 10-12....	La.; Miss.	New Orleans, La. (68 mph)	350	5	Winds 50-75 mi. W of New Orleans, where deaths occurred, were much stronger than 68 mph.
1915, Aug. 5-24.....	East Tex.; La.	Galveston, Tex. (120 mph)	275	50	Water 5-6 ft. deep in Galveston business district. 90% of homes demolished. Warnings issued well ahead of time.
1915, Sept. 22-Oct. 2..	Mid-Gulf Coast	Burrwood, La. (140 mph)	275	13	Many casualties due to persons insisting on staying in low-lying areas despite warnings.
1919, Sept. 2-14.....	Fla.; La.; Tex.	Sand Key, Fla. (84† mph)	284	22	488 persons drowned at sea.
1926, Sept. 6-22.....	Fla.; Ala.	Miami Beach, Fla. (132 mph)	100	105	Most deaths were in Miami area. Said to have been one of most destructive storms of century.
1928, Sept. 6-20.....	Southern Fla.	Lake Okeechobee, Fla. (75† mph)	1,836	25	1,870 injured. Nearly all deaths were in Lake Okeechobee area. Winds estimated as high as 160 mph caused Lake to overflow into populated areas.
1935, Aug. 31-Sept. 8..	Southern Fla.	Tampa, Fla. (75 mph)	376	6	Sustained winds over Florida Keys est. 150-200 mph. Remembered as "Labor Day Storm," one of most violent on record.
1935, Oct. 30-Nov. 8...	Southern Fla.	Miami, Fla. (75 mph)	5	6	Called "The Yankee Storm" because it moved in from N. E. It was of small diameter and its wind covered only narrow band.
1938, Sept. 16-22.....	Long Island, N. Y. Southern New Eng.	Blue Hills Obs., Mass. (186 mph)	600	250	Unusually destructive. Storm center moved as fast as 56 mph at times. 1,754 injured. Damage est. as high as \$330 million.
1940, Aug. 5-15.....	Ga.; S. C.; N. C.	Savannah, Ga. (73 mph)	50	3	30 of deaths were due to disastrous flooding inland as far west as Tennessee.
1944, Sept. 8-16.....	N. C. to New England	Cape Henry, Va. (134 mph)	46	100	344 deaths at sea. Shipping lanes were crowded with war-time activity.
1944, Oct. 13-21.....	Fla. to Carolinas	Dry Tortugas Is. (120 mph)	18	100	About 300 were killed in Cuba area before storm reached U. S. Evacuation of thousands from threatened areas in Fla. prevented higher toll.
1945, Aug. 24-29.....	Texas	Seadrift, Tex. (135 mph)	3	20	Several other coastal localities recorded 135 mph. One of most intense hurricanes in Texas.
1945, Sept. 11-19.....	Fla.; Ga.; S. C.	Carysfort Reef Light, Fla. (138 mph)	4	60	22 casualties in Bahamas. Damage mostly in Dade Co., Fla. Evacuation of 50,000 persons prevented heavier loss of life.

Date	Areas hardest hit	Land stations with highest wind speed	Deaths (U. S. only)	Est. damage (millions)	Remarks
1947, Sept. 10-19.....	Fla.; Mid-Gulf Coast	Hillsboro Light, Fla. (155 mph)	51	110	Damage especially heavy along Gulf Coast. Onshore winds resulted in high water.
1949, Aug. 23-29.....	Fla. to Carolinas	Jupiter, Fla. (153 mph)	2	52	Center of storm crossed Lake Okeechobee. Levees held back water, which rose 12 ft. (Compare casualties with 1928.)
1950, Oct. 15-19.....	Florida	Miami, Fla. (122 mph)	4	28	"KING"—small but violent storm. Struck Miami, then moved up Florida peninsula.
1954, Aug. 26-31.....	N. C. to Maine	Block Island, R. I. (135 mph)	60	461	"CAROL"—more damage than any other single storm on record for U. S. Water and high waves flooded low-lying areas 1,000 injuries in Long Island-New England area.
1954, Sept. 6-11.....	N. J. to Maine	Blue Hill Obs., Mass. (101 mph)	21	43	"EDNA"—wind est. up to 135 mph at Massachusetts Bay.
1954, Oct. 5-16.....	S. C. to N. Y.	(See Remarks)	95	252	"HAZEL"—several N. C. localities had winds of 130-150 mph with unusually heavy wave damage resulting. Est. 400-1,000 casualties in Haiti. In Canada there were 78 deaths, mostly due to flooding.
1955, Aug. 11-13.....	N. C. to Pa. and N. Y.	Ft. Macon, N. C. (100 mph)	25	46	"CONNIE"—center passed over Morehead City and Beaufort flooding these cities. 12.35 in. of rain in New York City.
1955, Aug. 17-19.....	N. C. to New England	Wilmington, N. C. (74 mph)	184	832	"DIANE"—worst floods in history in Southern New England. 16 in. of rain in Hartford area.
1955, Sept. 19-20.....	North Carolina	Beaufort, N. C. (120* mph)	7	88	"IONE"—center passed over Morehead City and Beaufort but lost force rapidly thereafter. Recurved to sea south of Norfolk.
1956, Sept. 24-26.....	Northwest Florida	Burrwood, La. (84 mph)	15	25	"FLOSSY"—center passed in northeasterly direction over Burrwood, La., at 4 a.m. and over Pensacola, Fla., at 3 p.m. on Sept. 24. Lost force rapidly thereafter, but dumped heavy rains in southeastern states.
1957, June 26-28.....	Southwest Texas and Southwest Louisiana	Lake Charles, La. (97 mph)	390	150	"AUDREY"—gave an early start to the hurricane season and wiped out Cameron, La. Two weeks later "BERTHA," a less destructive tropical storm, struck in exactly the same area.

* Estimated. † Wind-measuring equipment disabled at speed indicated. NOTE: Additional hurricanes may be listed in *News Chronology of 1969*.

Tropical Storms and Hurricanes, 1886-1958

	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Number of tropical storms.....	2	9	37	39	133	193	138	26	4	581
Number of tropical storms that reached hurricane intensity.....	1	2	16	21	99	123	64	11	2	339

Groups of Tornadoes That Caused Outstanding Damage

Source: Data for 1884-1953, reprinted from *Tornadoes of the United States* by S. D. Flora. Copyright, 1954, by University of Oklahoma Press. Used by permission.

Date	Tornadoes in group	Deaths	Property losses	States in which storms occurred
1884, Feb. 19.....	60	800	*	Mississippi, Alabama, North and South Carolina, Tennessee, Kentucky, Indiana
1917, May 26-27.....	*	249	\$ 5,555,000	Illinois, Indiana, Arkansas, Kentucky, Tennessee, Alabama, Mississippi
1920, Apr. 20.....	6	220	3,525,000	Mississippi, Alabama, Tennessee
1924, Apr. 29-30.....	22	115	4,372,300	Oklahoma, Arkansas, Alabama, Georgia, Louisiana, North and South Carolina, Virginia
1924, June 28.....	4	96	13,050,000	Ohio and Pennsylvania
1925, Mar. 18.....	8	792	17,872,000	Missouri, Illinois, Indiana, Kentucky, Tennessee, Alabama
1927, May 8-9.....	36	227	7,877,000	Texas, Louisiana, Missouri, Nebraska, Indiana, Michigan
1932, Mar. 21.....	27	321	5,514,000	Alabama, Mississippi, Georgia, Tennessee
1936, Apr. 5-6.....	22	498	21,800,000	Arkansas, Alabama, Tennessee, Georgia, South Carolina
1944, June 23.....	4	153	5,160,000	Pennsylvania, West Virginia, Maryland
1947, Apr. 9-10.....	8	167	10,030,750	Texas, Oklahoma, Kansas
1952, Mar. 21-22.....	31	343	15,327,100	Arkansas, Tennessee, Missouri, Mississippi, Alabama, Kentucky
1953, June 7-9.....	12	234	93,230,840	Michigan, Ohio, and New England states.
1954, Mar. 13.....	4	8	9,000,000	Georgia. Heavy damage at Lawson Air Base and Ft. Benning.
1955, May 25.....	13	102	11,747,500	Oklahoma and Kansas. Completely destroyed Udall, Kans., and part of Blackwell, Okla.
1956, Apr. 2-3.....	(†)	39	17,000,000	Oklahoma, Kansas, Tennessee, Michigan, Wisconsin
1956, Apr. 15.....	(†)	25	1,500,000	Alabama
1957, Apr. 2.....	(†)	17	2,000,000	Texas and Oklahoma
1957, May 15.....	(†)	21	500,000	Texas
1957, May 20-21.....	(†)	48	15,000,000	Missouri
1957, Dec. 18.....	(†)	16	8,000,000	Illinois, Missouri

* Not definitely known; believed to be large. † No information available.
NOTE: Additional storms may be listed in *News Chronology of 1969*.

CLIMATE OF SELECTED U. S. CITIES

Source: U. S. Weather Bureau

Asterisk (*) indicates less than one-half; T—indicates trace; n.a.—indicates not available.

Month	Temperature				Precipitation			Percentage possible sunshine	Percentage relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
BAKERSFIELD, CALIFORNIA (KERN COUNTY AIRPORT) Lat 35° 25' N, Long 119° 03' W									
January.....	57	37	82	14	1.02	T	6	n.a.	71
April.....	76	50	100	30	0.75	T	5	n.a.	46
July.....	101	67	118	46	0.01	0.0	*	n.a.	29
October.....	81	52	104	31	0.37	0.0	2	n.a.	42
Annual.....	79	51	118	13	6.36	T	38	n.a.	47
CARIBOU, MAINE (MUNICIPAL AIRPORT) Lat 46° 52' N, Long 68° 01' W									
January.....	18	-1	51	-32	2.24	21.9	14	n.a.	69
April.....	43	26	80	2	2.63	6.0	13	n.a.	58
July.....	75	54	95	40	4.03	0.0	14	n.a.	58
October.....	51	33	79	14	3.47	1.6	12	n.a.	61
Annual.....	47	28	96	-41	35.88	103.0	156	n.a.	62
CHICAGO, ILLINOIS (MIDWAY AIRPORT) Lat 41° 47' N, Long 87° 45' W									
January.....	33	17	67	-20	1.84	7.1	10	43	70
April.....	58	39	91	17	2.82	0.5	13	53	53
July.....	85	64	105	49	2.73	0.0	9	71	51
October.....	64	44	91	14	2.56	0.3	7	65	51
Annual.....	59	41	105	-23	32.72	34.3	119	59	58

Month	Temperature				Precipitation			Percentage possible sunshine	Percentage relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
DALLAS, TEXAS (LOVE FIELD) Lat 32° 51' N, Long 96° 51' W									
January.....	55	36	88	-3	2.47	1.1	8	46	62
April.....	77	56	96	30	3.87	0.0	9	58	56
July.....	95	76	111	56	1.97	0.0	5	79	49
October.....	80	58	100	26	2.67	0.0	6	67	50
Annual.....	77	56	111	-3	34.42	1.7	82	67	54
DENVER, COLORADO (STAPLETON AIRFIELD) Lat 39° 46' N, Long 104° 53' W									
January.....	42	16	76	-29	0.50	8.5	6	67	45
April.....	61	34	86	4	2.05	10.0	9	61	40
July.....	87	58	104	42	1.36	0.0	9	70	32
October.....	66	37	90	-2	1.01	2.5	6	73	34
Annual.....	64	36	105	-30	14.20	56.2	86	69	38
DULUTH, MINNESOTA (WILLIAMSON-JOHNSON AIRPORT) Lat 46° 50' N, Long 92° 11' W									
January.....	17	-1	52	-35	1.23	16.6	11	51	73
April.....	46	28	88	-5	2.50	7.2	10	57	59
July.....	77	56	97	40	3.64	0.0	11	67	61
October.....	53	35	86	9	2.22	1.2	9	55	61
Annual.....	47	29	97	-35	29.72	78.5	133	56	65
GREAT FALLS, MONTANA (MUNICIPAL AIRPORT) Lat 47° 29' N, Long 111° 21' W									
January.....	32	14	62	-33	0.55	8.0	8	52	62
April.....	56	33	87	-6	0.95	4.0	8	63	46
July.....	84	55	102	42	1.35	T	8	79	37
October.....	59	37	91	7	0.72	2.6	6	61	47
Annual.....	56	34	105	-35	14.03	54.6	98	64	51
KANSAS CITY, MISSOURI (MUNICIPAL AIRPORT) Lat 39° 07' N, Long 94° 35' W									
January.....	39	21	75	-20	1.43	5.0	7	50	64
April.....	66	46	95	16	3.61	0.6	11	58	51
July.....	91	71	112	53	2.83	0.0	8	76	49
October.....	70	49	98	17	2.93	T	6	69	48
Annual.....	66	46	113	-22	35.31	17.9	100	62	55
LOS ANGELES, CALIFORNIA (CITY OFFICE) Lat 34° 03' N, Long 118° 14' W									
January.....	65	45	90	28	2.38	T	7	70	46
April.....	71	52	100	36	1.17	0.0	4	65	51
July.....	83	62	109	49	T	0.0	*	80	49
October.....	77	56	104	40	0.50	0.0	2	73	47
Annual.....	74	54	110	28	14.54	T	39	73	47
MIAMI, FLORIDA (INTERNATIONAL AIRPORT) Lat 25° 48' N, Long 80° 16' W									
January.....	78	59	87	28	2.06	0.0	5	n.a.	59
April.....	85	65	93	39	3.99	0.0	7	n.a.	56
July.....	91	74	100	68	6.73	0.0	16	n.a.	64
October.....	86	70	94	51	8.23	0.0	16	n.a.	63
Annual.....	85	67	100	28	56.41	0.0	121	n.a.	60
MIAMI BEACH, FLORIDA Lat 25° 47' N, Long 80° 08' W									
January.....	76	64	84	35	2.04	0.0	7	n.a.	n.a.
April.....	81	70	90	48	2.61	0.0	7	n.a.	n.a.
July.....	88	77	98	69	3.83	0.0	15	n.a.	n.a.
October.....	84	74	92	55	7.07	0.0	15	n.a.	n.a.
Annual.....	82	71	98	35	42.90	0.0	127	n.a.	n.a.

Month	Temperature				Precipitation			Percentage possible sunshine	Percentage relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
NASHVILLE, TENNESSEE (BERRY FIELD) Lat 36° 07' N, Long 86° 41' W									
January.....	49	31	78	—10	4.93	2.6	12	42	67
April.....	71	49	90	25	3.69	T	11	60	51
July.....	91	69	107	51	3.96	0.0	10	69	53
October.....	74	50	94	26	2.52	T	7	65	51
Annual.....	71	50	107	—13	45.03	8.2	120	59	56

NEW ORLEANS, LOUISIANA (CITY OFFICE) Lat 29° 57' N, Long 90° 04' W

January.....	64	48	83	15	4.78	0.1	10	49	67
April.....	78	62	91	38	5.45	0.0	7	63	59
July.....	90	76	102	66	7.09	0.0	15	58	64
October.....	80	65	94	40	3.66	0.0	6	69	58
Annual.....	78	63	102	7	63.54	0.3	120	59	62

NEW YORK, NEW YORK. (BATTERY PLACE) Lat 40° 42' N, Long 74° 01' W

January.....	40	26	71	-6	3.46	7.4	12	51	62
April.....	58	42	91	12	3.22	1.0	11	60	54
July.....	82	67	102	54	4.24	0.0	11	65	57
October.....	65	50	90	27	3.04	T	9	63	58
Annual.....	61	46	102	-14	42.03	30.1	124	60	59

PHOENIX, ARIZONA (SKY HARBOR AIRPORT) Lat 33° 26' N, Long 112° 01' W

January.....	65	35	85	16	0.60	T	4	76	47
April.....	84	50	104	32	0.35	T	2	88	28
July.....	105	75	118	61	0.70	0.0	5	84	31
October.....	88	54	105	36	0.40	0.0	3	88	32
Annual.....	86	53	118	16	7.16	T	36	85	33

SALT LAKE CITY, UTAH (MUNICIPAL AIRPORT) Lat 40° 46' N, Long 111° 58' W

January.....	36	17	60	-22	1.20	13.7	10	48	70
April.....	63	37	85	14	1.76	3.4	9	67	42
July.....	92	61	106	41	0.61	0.0	5	82	27
October.....	67	39	88	18	1.34	0.5	6	73	41
Annual.....	64	39	106	-30	14.74	52.1	88	69	46

SAN FRANCISCO, CALIFORNIA (CITY OFFICE) Lat 37° 47' N, Long 122° 25' W

January.....	55	45	78	29	4.03	T	11	54	68
April.....	62	49	89	40	1.49	0.0	6	69	65
July.....	64	53	99	47	0.01	0.0	1	64	75
October.....	68	54	96	43	1.07	0.0	5	69	62
Annual.....	63	51	101	27	20.51	T	70	65	67

SEATTLE, WASHINGTON (CITY OFFICE) Lat 47° 36' N, Long 122° 20' W

January.....	45	36	67	3	4.49	5.0	18	28	80
April.....	59	44	87	30	1.94	T	13	49	63
July.....	75	56	100	46	0.52	0.0	5	62	62
October.....	61	48	82	29	3.08	T	14	36	79
Annual.....	60	46	100	3	31.92	8.6	153	45	72

WASHINGTON, D. C. (CITY OFFICE) Lat 38° 54' N, Long 77° 03' W

January.....	44	29	80	-14	3.41	5.9	11	46	56
April.....	65	45	95	15	3.20	0.4	11	57	45
July.....	87	68	106	52	4.11	0.0	11	64	52
October.....	69	49	96	26	2.97	0.1	8	61	51
Annual.....	66	48	106	-15	41.44	19.4	124	58	51

English Language Daily and Sunday U. S. Newspapers

(as of Sept. 30, 1958)

Source: Editor & Publisher.

State	Morning papers & circulation		Evening papers & circulation		Total M & E & circulation		Sunday papers & circulation	
Alabama.....	3	195,012	15	441,373	18	636,385	14	544,910
Alaska.....	0		6	47,921	6	47,921	1	4,201
Arizona.....	3	147,383	9	138,006	12	285,389	5	220,167
Arkansas.....	5	135,604	29	228,445	34	364,049	10	299,361
California ¹	17	1,781,145	107	2,923,972	123	4,705,117	25	3,540,180
Colorado.....	4	201,080	22	398,396	26	599,476	9	612,723
Connecticut.....	6	206,958	19	555,938	25	762,896	6	467,863
Delaware.....	1	30,477	2	81,152	3	111,629	0	
District of Columbia.....	1	390,104	2	433,060	3	823,164	2	726,573
Florida.....	13	880,910	29	603,902	42	1,484,862	31	1,465,945
Georgia.....	6	375,165	24	499,440	30	874,605	11	805,334
Hawaii.....	1	46,347	4	129,796	5	176,143	2	86,537
Idaho ¹	4	65,866	14	82,131	16	147,997	5	108,206
Illinois.....	9	1,779,333	76	2,022,162	85	3,801,495	18	3,021,989
Indiana ¹	10	535,413	77	1,159,241	86	1,694,654	19	1,058,988
Iowa.....	4	298,073	40	619,484	44	917,657	9	827,595
Kansas ¹	5	204,259	48	503,250	52	707,509	15	490,628
Kentucky ¹	7	299,315	22	401,589	27	700,904	13	521,447
Louisiana.....	4	337,925	14	374,664	18	712,589	9	579,143
Maine.....	5	186,355	4	54,368	9	240,723	1	92,447
Maryland.....	4	227,044	8	528,519	12	755,563	3	658,360
Massachusetts.....	6	891,372	46	1,513,555	52	2,404,927	9	1,495,698
Michigan.....	2	508,356	53	1,849,996	55	2,358,352	12	2,036,412
Minnesota.....	5	367,704	26	669,419	31	1,037,123	5	911,048
Mississippi.....	3	66,271	16	202,053	19	268,324	9	167,616
Missouri ¹	8	767,013	49	1,045,861	56	1,812,874	14	1,437,596
Montana.....	4	91,213	14	72,445	18	163,658	10	147,190
Nebraska.....	3	164,196	17	291,348	20	445,544	5	337,765
Nevada.....	2	28,619	6	49,869	8	78,488	3	62,230
New Hampshire ¹	1	24,147	9	96,196	9	120,343	1	37,744
New Jersey.....	6	407,831	20	988,627	26	1,396,458	8	771,342
New Mexico.....	1	42,976	18	138,509	19	181,485	14	147,227
New York.....	22	4,876,125	69	3,530,060	91	8,406,185	20	9,356,076
North Carolina.....	10	529,155	37	519,474	47	1,048,629	15	706,528
North Dakota.....	2	34,339	9	117,188	11	151,527	2	84,102
Ohio.....	8	768,764	89	2,562,188	97	3,330,952	21	2,097,203
Oklahoma.....	8	300,056	44	415,414	52	715,470	37	630,619
Oregon.....	4	261,288	17	344,974	21	606,262	7	556,734
Pennsylvania ¹	27	1,375,721	99	2,700,480	123	4,146,201	14	3,247,714
Rhode Island.....	1	57,908	6	209,265	7	267,173	2	191,345
South Carolina.....	8	323,934	9	140,524	17	464,458	7	350,215
South Dakota.....	1	2,927	11	157,185	12	160,112	4	111,014
Tennessee.....	7	466,808	22	536,289	29	1,003,097	11	748,966
Texas.....	22	1,160,325	89	1,639,395	111	2,799,720	76	2,427,073
Utah.....	1	99,349	4	134,991	5	234,340	4	230,249
Vermont.....	2	50,950	8	42,503	10	93,453	1	11,198
Virginia.....	9	385,029	22	461,005	31	846,034	12	574,149
Washington.....	6	326,953	21	604,959	27	931,912	10	812,592
West Virginia.....	9	236,362	20	213,768	29	450,130	8	370,252
Wisconsin.....	3	248,711	35	863,983	38	1,112,694	5	851,880
Wyoming.....	5	32,914	4	34,466	9	67,380	4	37,495
Total U. S., Sept. 30, 1958.....	308	23,206,964	1,460	34,387,490	1,756	57,594,454	558	47,041,223
Total U. S., Sept. 30, 1957 ²	309	23,170,552	1,453	34,634,893	1,755	57,805,445	544	47,044,349
Total U. S., Sept. 30, 1956 ²	314	22,491,500	1,454	34,610,010	1,761	57,101,510	546	47,162,246
Total U. S., Sept. 30, 1955 ²	316	22,183,408	1,454	33,963,951	1,760	56,147,359	541	46,447,658
Total U. S., Sept. 30, 1954 ²	317	21,705,436	1,448	33,367,044	1,765	55,072,480	544	46,176,450
Total U. S., Sept. 30, 1953 ²	327	21,412,474	1,458	33,059,812	1,785	54,472,286	544	45,948,554
Total U. S., Sept. 30, 1952 ²	327	21,159,527	1,459	32,791,088	1,786	53,950,615	545	46,210,136

¹ "All-day" newspapers are listed in morning and evening columns, and their circulations are divided between morning and evening figures. Adjustments have been made in state and U. S. total figures. ² Excludes newspapers and circulations for Alaska and Hawaii.

U. S. Daily Newspapers

Source: Audit Bureau of Circulations: Publishers' Statements for 6-mo. period ending Mar. 31, 1959.

(NOTE: Where two or more newspapers are listed under a city, the order is according to size of total daily circulation.)

City and newspaper	Net Paid Circulation		
	Morning ¹	Evening ¹	Sunday
Akron (Ohio): BEACON JOURNAL.....		165,373	175,773
Albany (N. Y.): TIMES-UNION.....	64,453		122,014
Atlanta: CONSTITUTION (M); JOURNAL (E); JOURNAL & CONSTITUTION (S)	198,028	258,139	513,930
Baltimore: SUN.....	194,434 ²	218,865 ²	319,972
NEWS-POST (E); AMERICAN (S).....		232,089 ²	318,911
Birmingham: POST-HERALD (M); NEWS (E & S).....	95,688	187,571	225,130
Boston: RECORD (M); AMERICAN (E); ADVERTISER (S).....	357,878 ²	180,440 ²	481,087
HERALD (M & S); TRAVELER (E).....	173,063 ²	183,528 ²	299,456
GLOBE.....	187,078 ²	153,296 ²	421,586
CHRISTIAN SCIENCE MONITOR.....		179,839	
Buffalo: NEWS.....		289,078 ²	
COURIER-EXPRESS.....	159,295		307,055
Charleston (W. Va.): GAZETTE (M); DAILY MAIL (E); GAZETTE-MAIL (S).....	71,268	53,794	108,561
Charlotte (N. C.): OBSERVER.....	156,818		175,529
Chattanooga: TIMES (M & S); NEWS-FREE PRESS (E).....	51,131	57,615	80,555
Chicago: TRIBUNE.....	882,837		1,253,617
NEWS.....		552,426 ²	
SUN-TIMES.....	527,675 ²		656,782
AMERICAN.....		470,068 ²	620,019
WALL STREET JOURNAL (Midwest Edition).....	183,134 ²		
Cincinnati: POST & TIMES-STAR.....		266,437	
ENQUIRER.....	213,050		283,144
Cleveland: PRESS.....		320,573	
PLAIN DEALER.....	313,713		511,661
NEWS.....		136,112	
Columbus (Ohio): DISPATCH.....		185,437	249,403
Dallas: NEWS.....	213,110		222,962
TIMES HERALD.....		183,894 ²	193,979
Dayton (Ohio): NEWS.....		148,237	177,633
Denver: POST.....		252,748 ²	339,281
ROCKY MOUNTAIN NEWS.....	160,810		167,589
Des Moines: REGISTER (M & S); TRIBUNE (E).....	224,337	129,991	521,849
Detroit: NEWS.....		475,873	596,884
FREE PRESS.....	459,265		512,580
TIMES.....		385,998	485,208
Fort Worth: STAR-TELEGRAM.....	110,186	136,466	218,870
Fresno (Calif.): BEE.....		103,391	122,038
Grand Rapids (Mich.): PRESS.....		114,815	
Harrisburg (Pa.): PATRIOT (M); NEWS (E); PATRIOT-NEWS (S).....	39,577	78,152	147,580
Hartford (Conn.): TIMES.....		123,013	
COURANT.....	107,120		150,984
Honolulu: STAR-BULLETIN.....		109,379 ³	
Houston: POST.....	207,028		215,350
CHRONICLE.....		200,175 ²	221,860
PRESS.....		102,141 ²	
Indianapolis: STAR (M & S); NEWS (E).....	206,501	165,309	327,408
TIMES.....		90,890	106,450
Jacksonville (Fla.): TIMES-UNION.....	161,895		165,963
Kansas City (Mo.): TIMES (M); STAR (E & S).....	337,804	343,052	364,116
Knoxville: NEWS-SENTINEL.....		99,907	138,337
Little Rock: DEMOCRAT.....		88,463	104,121
ARKANSAS GAZETTE.....	85,664		96,764
Long Beach (Calif.): INDEPENDENT PRESS-TELEGRAM.....	38,832	109,268	138,577
Los Angeles: TIMES.....	497,873		893,792
EXAMINER.....	359,112		697,191
HERALD & EXPRESS.....		355,689 ²	
MIRROR-NEWS.....		310,260 ²	
Louisville: COURIER-JOURNAL (M & S); TIMES (E).....	216,539	174,743	313,647
Memphis: COMMERCIAL APPEAL (M & S); PRESS SCIMITAR (E).....	212,757	148,522	258,739
Miami: HERALD.....	312,579		376,537
NEWS.....		142,289 ²	124,114
Milwaukee: JOURNAL.....		369,669	505,899

¹ Unless otherwise indicated, figure is an average of the Monday-through-Saturday circulation. ² Figure is an average of the Monday-through-Friday circulation; i.e., Saturday circulation, if any, has not been used in making the average. ³ Saturday evening only; Monday-Friday. 101,487. ⁴ Post office address is Garden City, N. Y.

City and newspaper	Net Paid Circulation		
	Morning ¹	Evening ¹	Sunday
Milwaukee: SENTINEL	180,613	.....	227,373
Minneapolis: TRIBUNE (M & S); STAR (E)	215,175	291,795	640,554
Nashville: TENNESSEAN	122,999	.....	197,608
Nassau County (Long Island, N. Y.): NEWSDAY ⁴	.....	305,451	.....
New Orleans: TIMES-PICAYUNE (M & S); STATES & ITEM (E)	195,675	165,696 ²	310,665
New York City: NEWS	2,025,229 ²	.....	3,460,528
MIRROR	836,810 ²	.....	1,345,573
TIMES	673,974 ²	.....	1,347,036
JOURNAL-AMERICAN	.....	599,536 ²	821,873
WORLD-TELEGRAM & SUN	.....	474,120 ²	.....
POST	.....	351,700 ²	282,687
HERALD TRIBUNE	350,966	.....	532,587
LONG ISLAND PRESS (Jamaica, N. Y.)	.....	289,175	379,787
WALL STREET JOURNAL (Eastern Edition)	251,311 ²	.....	.....
Newark (N. J.): NEWS	.....	279,812 ²	367,789
STAR-LEDGER	223,839	.....	377,108
Norfolk-Portsmouth-South Norfolk: VIRGINIAN PILOT (M); NORFOLK LEDGER-DISPATCH & PORTSMOUTH STAR (E); VIRGINIAN PILOT & PORTSMOUTH STAR (S)	107,161	94,772	140,730
Oakland (Calif.): TRIBUNE	.....	208,029	241,109
Oklahoma City: OKLAHOMAN (M & S); TIMES (E)	154,743	115,320	242,783
Omaha: WORLD-HERALD	125,799	122,950	262,228
Philadelphia: BULLETIN	.....	704,756 ²	720,693
INQUIRER	605,007 ²	.....	1,075,084
NEWS	.....	221,488 ²	.....
Phoenix: REPUBLIC (M & S); GAZETTE (E)	124,160	80,250	184,091
Pittsburgh: PRESS	.....	311,716	543,529
POST-GAZETTE	271,885	.....	.....
SUN-TELEGRAPH	.....	176,307	394,175
Portland (Maine): PRESS-HERALD (M); EXPRESS (E); TELEGRAM (S)	50,306	28,523	93,943
Portland (Oreg.): OREGONIAN	242,035	.....	306,014
OREGON JOURNAL	.....	187,588 ²	209,673
Providence (R. I.): JOURNAL (M & S); BULLETIN (E)	57,719	143,784	188,039
Raleigh (N. C.): NEWS & OBSERVER (M & S); TIMES (E)	124,018	22,312	135,787
Richmond (Va.): TIMES-DISPATCH (M & S); NEWS-LEADER (E)	135,285	111,665	184,971
Rochester (N. Y.): DEMOCRAT & CHRONICLE (M & S); TIMES-UNION (E)	124,044	126,067	181,918
Sacramento: BEE	.....	152,873	.....
St. Louis: POST-DISPATCH	.....	411,440 ²	542,463
GLOBE-DEMOCRAT	336,137 ²	.....	365,067
St. Paul: PIONEER PRESS (M & S); DISPATCH (E)	92,567	122,734	188,901
St. Petersburg (Fla.): TIMES	112,029	.....	112,393
Salt Lake City: TRIBUNE (M & S); DESERET NEWS-SALT LAKE TELEGRAM (E)	99,408	86,211	182,473
San Antonio: EXPRESS (M); NEWS (E); EXPRESS-NEWS (S)	66,932 ²	73,338 ²	107,161
LIGHT	.....	107,257 ²	130,805
San Diego: EVENING TRIBUNE	.....	121,778	.....
UNION	93,414 ²	.....	195,823
San Francisco: EXAMINER	263,500	.....	480,044
CHRONICLE	236,480	.....	292,550
CALL-BULLETIN	.....	145,070 ²	.....
Seattle: TIMES	.....	221,549 ²	247,958
POST-INTELLIGENCER	200,766	.....	248,139
Shreveport (La.): TIMES (M & S); JOURNAL (E)	88,790	51,350	110,210
South Bend-Mishawaka (Ind.): TRIBUNE	.....	111,349	114,811
Spokane (Wash.): SPOKESMAN-REVIEW	89,409	.....	140,511
Syracuse (N. Y.): HERALD-JOURNAL (E); HERALD-AMERICAN (S)	.....	129,651	203,258
POST-STANDARD	99,344	.....	103,791
Tampa (Fla.): TRIBUNE (M & S); TIMES (E)	142,805	43,168	162,035
Toledo: BLADE	.....	183,675	178,318
Tulsa (Okla.): WORLD (M & S); TRIBUNE (E)	96,600	76,201	153,792
Washington (D. C.): POST & TIMES HERALD	393,503 ²	.....	446,758
EVENING STAR: SUNDAY STAR	.....	264,717 ²	299,840
NEWS	.....	173,790 ²	.....
Wichita (Kans.): EAGLE	103,113	76,127	121,372
BEACON	.....	94,275	122,963
Winston-Salem (N. C.): JOURNAL (M); TWIN CITY SENTINEL (E); JOURNAL-SENTINEL (S)	64,762	40,385	75,963
Worcester (Mass.): TELEGRAM (M & S); GAZETTE (E)	56,169	98,604	103,282
Youngstown (Ohio): VINDICATOR & TELEGRAM	.....	102,161	148,449

Leading Magazines: United States and Canada

Source: Audit Bureau of Circulations: Publishers' Statements for 6-month period ending Dec. 31, 1958.

Magazine	Circulation ¹	Magazine	Circulation ¹
American Girl (M)	674,652	Modern Screen (M) ⁴	1,185,745
American Home (M)	3,266,354	Motion Picture (M)	959,980
Argosy (M)	1,400,961	National Geographic Magazine (M)	2,257,553
Better Homes & Gardens (M)	4,664,182	Nation's Business (M)	760,835
Boys' Life (M)	1,788,532	Newsweek (W)	1,244,887
Chatelaine—The Canadian Home Journal (M) ²	779,174 ³	Outdoor Life (M)	942,791
Charm (M)	655,835	Parents' Magazine (M)	1,792,618
Confidential (BM)	647,963	Photoplay (M)	1,314,733
Coronet (M)	3,068,430	Playboy (M)	890,357
Cosmopolitan (M)	922,399	Popular Mechanics (M)	1,310,034
Ebony (M)	477,066	Popular Science Monthly (M)	1,122,648
Esquire (M)	837,445	Reader's Digest (M)	12,025,478
Everywoman's Family Circle (M)	5,103,482	Reader's Digest (Canadian English Edition) (M) ²	785,596
Field & Stream (M)	982,859	Redbook Magazine (M)	2,797,828
Glamour (M)	673,929	Saturday Evening Post (W)	5,780,564
Good Housekeeping (M)	4,465,515	Science & Mechanics (BM)	534,774
Grit (W)	948,404	Secrets (M)	560,377
Holiday (M)	891,897	Seventeen (M)	975,027
Hot Rod Magazine (M)	489,403	Sport (M)	497,853
House & Garden (M)	642,005	Sports Afield (M)	1,049,383
House Beautiful (M)	736,362	Sports Illustrated (W)	877,469
Household (M)	2,646,808 ⁵	Stag (M)	548,752
Ladies' Home Journal (M)	5,691,672	Sunset (M)	622,107
Liberty (M) ²	546,181 ⁵	Time (W)	2,291,492
Life (W)	6,080,811	True (M)	2,251,382
Living for Young Homemakers (M)	673,932	True Confessions (M)	1,363,881
Look (BW)	5,704,025	True Romance (M)	599,118
Maclean's Magazine (BW) ²	555,850	True Story (M)	2,534,131
Mademoiselle (M)	502,605	TV Guide (all editions) (W)	6,346,629
Male (M)	519,472	TV Radio Mirror (M)	775,965
McCall's (M)	5,338,349	U. S. News & World Report (W)	1,055,241
Mechanix Illustrated (M)	1,112,942	Woman's Day (M)	3,242,545
Modern Romances (M) ⁴	1,058,324	Workbasket (M)	1,340,161

¹ Average total paid circulation for the 6-month period indicated above. This table lists weekly, biweekly, monthly and bimonthly magazines of more than 450,000 circulation, but excludes official organs of associations and religious or scholastic magazines. ² Canadian publication. ³ For period Sept. 1-Dec. 31, 1958. ⁴ Except January. ⁵ For 6-mo. period ending Dec. 31, 1957. NOTE: W—weekly; BW—biweekly; M—monthly; BM—bimonthly.

Radio and Television Stations and Networks

Source: National Association of Broadcasters.

Major networks	Standard broadcast stations (May 1, 1959)		TV Stations (May 1, 1959)	
	Owned and operated	Affiliated	Owned and operated	
ABC—American Broadcasting Company	5	298	5	
CBS—Columbia Broadcasting System	7	198	5	
MBS—Mutual Broadcasting System	2	445	..	
NBC—National Broadcasting Company	7	210	6	

Number of stations* (May 1, 1959)	Operating	Permits for construction	Total
Standard broadcast	3,354	123	3,477
FM (Frequency modulation)	601	143	744
Television	585	102	667

* Including territories and possessions.

Patents

Source: Patent Office.

A patent, in the most general sense, is a document issued by a government, conferring some special right or privilege. The term is now restricted mainly to patents for inventions; occasionally, land patents.

The grant of a patent for an invention gives the inventor the privilege, for a limited period of time, of excluding others from practicing a certain art or from making, using, or selling a certain article. However, it does not give him the right to make, use, or sell his own invention if it is an improvement on some unexpired patent whose claims are infringed thereby.

In the U. S., the law provides that a patent may be granted, for a term of 17 years, to any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, as well as any new and useful improvements thereof. A patent may also be granted to a person who has invented or discovered and asexually reproduced a new and distinct variety of plant (other than a tuber-propagated one) or has invented a new, original and ornamental design for an article of manufacture.

A patent is granted only upon a regularly

filed application, complete in all respects; upon payment of the fees; and upon determination that the disclosure is complete and that the invention is new and useful. The disclosure must be of such nature as to enable others to reproduce the invention.

A complete application, which must be addressed to the Commissioner of Patents, Washington, D. C., consists of a petition, specification and claims, oath, drawing (whenever the nature of the case admits of it) and a filing fee of \$30 for cases having 20 claims or less. An additional fee of \$1 per claim is required for cases having more than 20 claims. The filing fee is not returned to the applicant if the patent is refused. If the patent is allowed, another fee of \$30 (and \$1 each for claims allowed in excess of 20) is required before the patent is issued. The fees for design patents vary.

Applications are considered in the order in which they are received. Patents are not granted for printed matter, for methods of doing business, or for devices for which claims contrary to natural laws are made. Applications for a perpetual-motion machine have been made from time to time, but until a working model is presented that actually fulfills the claim, no patent will be issued.

Trademarks

Source: Patent Office.

A trademark may be defined as a word, letter, device, or symbol, as well as some combination of these, which is used in connection with merchandise and which points distinctly to the origin or ownership of it.

Certificates of registration of trademarks are issued under the seal of the Patent Office and may be registered by the owner if he is engaged in interstate or foreign commerce, since any Federal jurisdiction over trademarks arises under the commerce clause of the Constitution. Trademarks may be registered by foreign owners who comply with our law, as well as by citizens of foreign countries with which the U. S. has treaties relating to trademarks. American citizens may register trademarks in foreign

countries by complying with the laws of those countries. The right to registration and protection of trademarks in many foreign countries is guaranteed by treaties.

General jurisdiction in trademark cases is given to the Federal courts. Decisions of examiners on applications or oppositions are subject to appeal to the Trademark Trial and Appeal Board and from it to the U. S. Court of Customs and Patent Appeals. Before adopting a trademark, a person should make a search of prior marks in order to avoid infringing unwittingly upon them.

The duration of a trademark registration is 20 years, but it may be renewed indefinitely for 20-year periods, provided the trademark is still in use at the time of expiration.

Television Statistics

Source: ELECTRONIC TECHNICIAN Magazine.

Year	TV sets mfd.	Retail value	Picture tubes mfd.	Retail value	TV stations	Homes with TV*	TV sets in use in U. S.
1946.....	10,000	\$ 5,000,000	20,000	\$ 1,000,000	5	8,000	8,000
1947.....	250,000	100,000,000	300,000	15,000,000	20	250,000	250,000
1948.....	1,000,000	350,000,000	1,500,000	75,000,000	48	1,000,000	1,000,000
1949.....	3,000,000	950,000,000	3,500,000	210,000,000	100	4,000,000	4,000,000
1950.....	7,500,000	2,200,000,000	8,000,000	400,000,000	107	10,400,000	10,500,000
1951.....	5,600,000	1,800,000,000	6,000,000	300,000,000	108	15,500,000	15,750,000
1953.....	7,300,000	1,675,000,000	9,900,000	360,000,000	350	26,000,000	28,000,000
1955.....	7,800,000	1,350,000,000	11,100,000	350,000,000	480	34,000,000	39,400,000
1957.....	6,400,000	1,050,000,000	13,100,000	410,000,000	521	39,500,000	47,200,000
1958.....	5,100,000	900,000,000	12,500,000	380,000,000	546	42,800,000	50,300,000

* Includes dwellings such as apartment hotels.

Copyrights

Source: Copyright Office.

A copyright is a statutory right obtained by authors, musicians, and artists or their assigns, upon compliance with the provisions of the copyright law, to prevent the reproduction of their works without their consent. The U. S. Constitution (Article I, Section 8) empowers Congress "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The copyright owner possesses the exclusive right to print, reprint, publish, copy, and vend the copyrighted work. Among some of the other rights possessed by the copyright owner are the exclusive rights to translate and dramatize literary works, to control public performance of dramas, and, in the case of nondramatic literary works and musical compositions, to control public performance for profit. Special provisions in regard to mechanical reproductions of musical compositions are included. Copyright protection extends to books; pamphlets; periodicals and contributions to periodicals; lectures, sermons, and monologues; dramas and dramatico-musical compositions; musical compositions; maps; works of art or models and designs for works of art; reproductions of a work of art; drawings or plastic works of scientific or technical character; photographs; prints and pictorial illustrations; commercial prints and labels; and motion pictures.

Copyright term endures 28 years from date of registration in the Copyright Office for unpublished material and from the date of publication for published works. The copyright may be renewed for an additional period of 28 years, provided application for such renewal is made within one year prior to the date of expiration of the original term. The copyright of a book or similar publication is secured by publication of such work after printing on the title page, or the page immediately following, the required copyright notice. This notice consists of the word *Copyright*, the abbreviation *Copr.* or the symbol ©, the name of the copyright owner, and the year date of publication. It is important to bear in mind that copyright comes into being at the time of first publication if this required notice appears on the work. If publication occurs without this notice, the work falls into the public domain, and the

Copyright Office cannot register the claim. In short, the Copyright Office does not grant copyrights; the obtaining of such protection depends on whether or not the claimant follows the statutory formalities at the time of publication. In view of the fact that those formalities vary with the different classes of works subject to copyright, persons interested in securing copyright should obtain circular No. 35 from the Register of Copyrights, Library of Congress, Washington 25, D. C.

The law requires that, promptly after the work has been published, two copies thereof (foreign works, one copy) must be promptly deposited in the Copyright Office. These copies should be accompanied by the proper application form and the statutory fee of \$4. If the work is a commercial print or label published in connection with the sale or advertisement of an article of merchandise, the fee is \$6.

Effective June 3, 1949, the term of ad interim protection for books and periodicals in the English language first published abroad was extended to five years. Such works may be imported into the U. S. up to a total of 1,500 copies after ad interim registration has been obtained. The above amendment to the law also affords to foreign authors and publishers an option of obtaining registration without payment of the usual statutory fee if an extra copy of the work, accompanied by a catalogue card, is submitted to the Copyright Office within six months of first publication abroad.

The Act of Aug. 31, 1954, modified a number of existing formalities, primarily with regard to certain foreign works, and was designed to implement the Universal Copyright Convention, which took effect on Sept. 16, 1955. One principal modification is that U. S. authors and publishers may use the symbol © instead of the word *Copyright* or the abbreviation *Copr.* The symbol must be accompanied by the name of the copyright owner and the year date of publication. The use of this form may obtain automatic copyright protection in member countries of the Universal Copyright Convention.

Application forms, etc., may be obtained free from the Copyright Office. Bulletin 14, the U. S. copyright law, can be purchased from the Register of Copyrights for 25¢.

Radio and Audio Statistics for U. S.

Source: ELECTRONIC TECHNICIAN Magazine.

Radio†	Audio
Radios: Homes with*	Phonographs sold, 1958..... 4,500,000
Secondary sets in home.....	Phonographs in U. S..... 37,100,000†
Sets in business.....	Tape recorders sold, 1958..... 500,000
Automobile radios.....	Tape recorders in U. S..... 2,900,000†
Total radios.....	Home hi-fi servicing..... \$114,000,000
Amateur stations licensed.....	Hi-fi audio \$ volume..... \$230,000,000†
179,000	

* Includes dwellings such as apartment hotels. † As of Jan. 1, 1959. ‡ 1958 sales.

Motor Vehicle Laws as of 1959

Source: American Automobile Association.

State	Speed limit	Date new license plates can be used	Driving license Required	Minimum age	State gasoline tax	% state sales tax	Period of stay for visitors ²	Safety responsibility law	Certificate of title required
Alabama	60 C	Oct. 1	yes	16	\$.07	1	Reciprocal	yes	no
Alaska	50 pf A	Dec. 15	yes	16	.05		90 days	no	yes
Arizona	AGC pf	Dec. 1	yes	18	.05	2	(¹)	yes	yes
Arkansas	60 pf AG	Jan. 1	yes	14	.065	3	90 days ²²	yes	yes
California	55 pf A	Jan. 1	yes	16	.06	3	(¹⁰)	yes	yes
Colorado	60 pf A	Dec. 1	yes	16	.06	2	Reciprocal	yes	yes
Connecticut	AFJ pf	Mar. 1	yes	16	.06	3 ⁵	(¹²)	yes	no
Delaware	50 B fml	(⁷)	yes	16	.05	...	90 days	yes	yes
D. C.	25 pf AG	Mar. 1	yes	16	.06	2 ²¹	Reciprocal	yes	yes
Florida	65 E fml	Jan. 1	yes	16	.07	1	Reciprocal	yes	yes
Georgia	60 C fml	Jan. 1	yes	16	.065	3	30 days	yes	no
Hawaii	45 pf AG	(¹³)	yes	15	.085	...	90 days	yes	yes
Idaho	60 pf AE	Dec. 1	yes	16	.06	...	Reciprocal	yes	yes
Illinois	65 K fml	Dec. 1	yes	16	.05	2½	Reciprocal	yes	yes
Indiana	65 pf AG	Jan. 2	yes	16 ¹⁷	.06	...	60 days	yes	yes
Iowa	AH	Dec. 1	yes	16	.06	2	Reciprocal	yes	yes
Kansas	70 H fml	Jan. 1	yes	16	.05	2½	(²³)	yes	yes
Kentucky	60 C fml	Dec. 29	yes	16	.07	3	Reciprocal	yes	(⁹)
Louisiana	60 pf A	Dec. 1	yes	15	.07	2	Reciprocal	yes	yes
Maine	60 E fml	Dec. 25	yes	15	.07	3	Reciprocal	yes	no
Maryland	50 pf ABL	Mar. 1	yes	16	.06	2	Reciprocal	yes ¹⁴	yes
Massachusetts	40 pf AG	Jan. 1	yes	16	.055	(²¹)	Reciprocal	yes ⁸	no
Michigan	65 E	(¹²)	yes	16	.06	3	90 days	yes	yes
Minnesota	60 pf ACG	Nov. 15	yes	15	.05	...	Reciprocal	yes	yes
Mississippi	60 fml	Nov. 1	yes	17	.07	2	30 days	yes	no
Missouri	65 HM fml	(¹²)	yes	16	.03	2	Reciprocal	yes	yes
Montana	65 pf AE	On issue	yes	15	.07	...	30 days ¹¹	yes	yes
Nebraska	65 E fml	Jan. 1	yes	16	.07	...	Reciprocal	yes	yes
Nevada	A	June 1	yes	16	.06	2	(¹⁰)	yes	yes
New Hampshire	50 pf AGJ	Mar. 1	yes	16	.06	...	Reciprocal	yes	no
New Jersey	50 pf AGJ	(¹²)	yes	17	.05	...	Reciprocal	yes ¹⁴	yes
New Mexico	70 GH fml	Dec. 15	yes	(²⁰)	.06	1 ²¹	(¹⁵)	yes	yes
New York	50 GN fml	Jan. 1	yes	18	.04	...	Reciprocal	(⁹)	no
North Carolina	60 G fml	Jan. 1	yes	16	.07	1 ¹²	Reciprocal	yes ⁸	yes
North Dakota	65 fml	Nov. 1	yes	16	.06	2	Reciprocal	yes ¹⁴	yes
Ohio	60 pf ACP	Mar. 1	yes	16	.05	3	Reciprocal	yes	yes
Oklahoma	65 EGQ fml	Dec. 11	yes	16	.065	2 ²¹	60 days ²⁴	yes	yes
Oregon	55 pf A	(¹²)	yes	16	.06	...	(¹⁰)	yes	yes
Pennsylvania	50 GP fml	Mar. 15	yes	18	.05	3	Reciprocal	yes	yes
Rhode Island	50 pf AD	Mar. 1	yes	16	.06	3	Reciprocal	yes	no
South Carolina	55 pf A	Oct. 1	yes	14	.07	3	90 days	yes	yes
South Dakota	60 pf AC	Jan. 1	yes	15	.06	2 ⁸	60 days	yes	yes
Tennessee	65 E fml	Mar. 1	yes	16	.07	3	30 days	yes	yes
Texas	60 pf AEQ	Feb. 1	yes	16	.05	1.1	Reciprocal	yes	yes
Utah	60 pf AC	Dec. 15	yes	16	.06	2	Reciprocal	yes	yes
Vermont	50 fml ¹⁶	Feb. 1	yes	18	.065	...	Reciprocal	yes	no
Virginia	55 fml	Mar. 15	yes	15	.06	...	60 days	yes	yes
Washington	60 G fml	Jan. 1	yes	16	.065	3½	Reciprocal	yes	yes
West Virginia	55 AJ fml	June 1	yes	16	.06	2	90 days	yes	yes
Wisconsin	65 AE fml	On issue	yes	16	.06	...	Reciprocal	yes	yes
Wyoming	60 pf A	Dec. 1	yes	15	.05	2	90 days	yes	yes

¹ A—reasonable and proper; B—55 mph on 4-lane highways; C—50 mph at night; D—45 mph at night; E—55 mph at night; F—parkways to 55 mph where marked; G—unless otherwise marked; H—60 mph at night; J—60 mph on turnpikes; K—70 mph on expressways; L—60 mph on expressways; M—70 mph on dual-lane U. S. routes; N—60 mph on New York Thruway; P—65 mph on turnpikes; Q—70 mph on turnpikes; fml—fixed maximum limit; pf—prima facie limit. ² Applies to nonresidents. The term "reciprocal" means that the state will extend to a nonresident the identical privileges granted by his home state to nonresident motorists. In some states, visitors must register within a specified time. In most states, persons who intend to reside permanently must buy new plates and secure new driving license at once, or within a limited time. Acquisition of employment or placing children in public school is often considered intention to reside permanently. ³ Registry tax on first registration. ⁴ Visitor's permit required after 10 days. ⁵ Sales or use tax on new cars, first registration of used cars. ⁶ Bill of sale must be filed. ⁷ Three months before current registration expires. ⁸ State has compulsory insurance. ⁹ Visitors must register immediately. ¹⁰ Until home state license plates expire. ¹¹ Extension granted. ¹² \$80 maximum. ¹³ Permanent license plate, validated by tab or windshield sticker. ¹⁴ State has "Unsatisfied Judgment Fund" law. ¹⁵ Nonresident car must bear valid registration plates of place of residence of owner. ¹⁶ Unless otherwise posted, trucks and busses 45 mph. ¹⁷ 16 years and 1 month. ¹⁸ Not to exceed 6 months when employed in state. ¹⁹ At discretion of Secretary of State. ²⁰ 15 years and 9 months. ²¹ Excise tax. ²² Visitor's permit must be obtained after 30 days. ²³ Until home-state registration expires or next Jan. 1, which ever is earlier. ²⁴ Visitor's permit must be obtained after 15 days.

Road Mileages Between U. S. Cities

Source: American Automobile Association.

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala. ....	.....	1,223	1,130	663	751	659	1,379
Boston, Mass.	1,223	.....	463	980	651	1,728	2,025
Buffalo, N. Y.	1,130	463	.....	524	188	1,427	1,562
Chicago, Ill.	663	980	524	.....	349	1,006	1,038
Cleveland, Ohio	751	651	188	349	.....	1,139	1,351
Dallas, Tex.	659	1,728	1,427	1,006	1,139	.....	800
Denver, Colo.	1,379	2,025	1,562	1,038	1,351	800	.....
Detroit, Mich.	759	735	247	272	167	1,278	1,323
El Paso, Tex.	1,286	2,527	1,938	1,654	1,750	627	725
Houston, Tex.	742	1,965	1,549	1,173	1,361	243	1,043
Indianapolis, Ind.	508	935	488	188	302	928	1,051
Kansas City, Mo.	714	1,429	982	503	794	527	644
Los Angeles, Calif.	2,121	3,162	2,699	2,175	2,457	1,486	1,202
Louisville, Ky.	394	971	550	300	362	892	1,168
Memphis, Tenn.	248	1,360	958	555	765	474	1,131
Miami, Fla.	803	1,540	1,434	1,384	1,346	1,346	2,182
Minneapolis, Minn.	1,088	1,405	962	425	774	991	916
New Orleans, La.	357	1,580	1,392	943	1,108	490	1,280
New York, N. Y.	851	208	384	850	501	1,646	1,833
Omaha, Nebr.	926	1,472	1,010	486	835	699	552
Philadelphia, Pa.	759	301	393	756	426	1,576	1,763
Phoenix, Ariz.	1,699	2,834	2,245	1,816	2,057	1,040	826
Pittsburgh, Pa.	812	576	223	463	131	1,278	1,465
St. Louis, Mo.	548	1,196	729	300	541	676	901
Salt Lake City, Utah	1,890	2,427	1,964	1,440	1,789	1,270	530
San Francisco, Calif.	2,443	3,186	2,723	2,199	2,548	1,807	1,270
Seattle, Wash.	2,779	3,098	2,600	2,076	2,608	2,153	1,403
Washington, D. C.	624	435	407	698	368	1,399	1,614

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	759	1,286	742	508	714	2,121	394
Boston, Mass.	735	2,527	1,965	935	1,429	3,162	971
Buffalo, N. Y.	247	1,938	1,549	488	982	2,699	550
Chicago, Ill.	272	1,654	1,173	188	503	2,175	300
Cleveland, Ohio	167	1,750	1,361	302	794	2,457	362
Dallas, Tex.	1,278	627	243	928	527	1,486	892
Denver, Colo.	1,323	725	1,043	1,051	644	1,202	1,168
Detroit, Mich. ....	.....	1,722	1,307	272	766	2,447	370
El Paso, Tex.	1,722	.....	736	1,450	1,039	816	1,416
Houston, Tex.	1,307	736	.....	1,035	770	1,566	999
Indianapolis, Ind.	272	1,450	1,035	.....	498	2,196	114
Kansas City, Mo.	766	1,039	770	498	.....	1,728	524
Los Angeles, Calif.	2,447	816	1,566	2,196	1,728	.....	2,183
Louisville, Ky.	370	1,416	999	114	524	2,183	.....
Memphis, Tenn.	716	1,091	591	444	466	1,874	381
Miami, Fla.	1,407	1,998	1,288	1,274	1,526	2,832	1,126
Minneapolis, Minn.	697	1,480	1,234	611	464	2,018	725
New Orleans, La.	1,116	1,135	385	844	868	1,976	751
New York, N. Y.	636	2,161	1,593	727	1,221	3,025	773
Omaha, Nebr.	758	1,045	942	591	212	1,689	736
Philadelphia, Pa.	580	2,091	1,501	657	1,151	2,919	693
Phoenix, Ariz.	2,029	413	1,163	1,757	1,346	405	1,783
Pittsburgh, Pa.	287	1,793	1,394	359	853	2,621	395
St. Louis, Mo.	515	1,209	821	241	257	1,916	267
Salt Lake City, Utah	1,712	1,137	1,537	1,547	1,155	735	1,679
San Francisco, Calif.	2,471	1,221	2,019	2,306	1,914	415	2,438
Seattle, Wash.	2,531	2,078	2,449	2,262	2,047	1,177	2,547
Washington, D. C.	522	2,026	1,511	563	1,051	2,799	599

Road Mileages Between U. S. Cities

Source: American Automobile Association.

Cities	Memphis	Miami	Minneapolis	New Orleans	New York	Omaha	Philadelphia
Birmingham, Ala.	248	803	1,088	357	851	926	759
Boston, Mass.	1,360	1,540	1,405	1,580	208	1,472	301
Buffalo, N. Y.	958	1,434	962	1,392	384	1,010	393
Chicago, Ill.	555	1,384	425	943	850	486	756
Cleveland, Ohio	765	1,346	774	1,108	501	835	426
Dallas, Tex.	474	1,346	991	490	1,646	699	1,576
Denver, Colo.	1,131	2,182	916	1,280	1,833	552	1,763
Detroit, Mich.	716	1,407	697	1,116	636	758	580
El Paso, Tex.	1,091	1,998	1,480	1,135	2,161	1,045	2,091
Houston, Tex.	591	1,288	1,234	385	1,593	942	1,501
Indianapolis, Ind.	444	1,274	611	844	727	591	657
Kansas City, Mo.	466	1,526	464	868	1,221	212	1,151
Los Angeles, Calif.	1,874	2,832	2,018	1,976	3,025	1,689	2,919
Louisville, Ky.	381	1,126	725	751	773	736	693
Memphis, Tenn. ....	.....	1,022	863	386	1,152	678	1,060
Miami, Fla.	1,022	.....	1,818	899	1,332	1,738	1,224
Minneapolis, Minn.	863	1,818	.....	1,275	1,284	364	1,190
New Orleans, La.	386	899	1,275	.....	1,208	1,080	1,116
New York, N. Y.	1,152	1,332	1,284	1,208	.....	1,300	93
Omaha, Nebr.	678	1,738	364	1,080	1,300	.....	1,230
Philadelphia, Pa.	1,060	1,224	1,190	1,116	93	1,230	.....
Phoenix, Ariz.	1,474	2,411	1,742	1,548	2,474	1,378	2,534
Pittsburgh, Pa.	804	1,276	897	1,169	368	932	298
St. Louis, Mo.	301	1,269	562	701	968	469	898
Salt Lake City, Utah	1,619	2,607	1,283	1,801	2,290	954	2,184
San Francisco, Calif.	2,195	3,270	2,141	2,297	3,049	1,713	2,943
Seattle, Wash.	2,532	3,582	1,642	2,683	2,926	1,773	2,832
Washington, D. C.	925	1,111	1,132	1,150	227	1,167	135

Cities	Phoenix	Pittsburgh	St. Louis	Salt Lake City	San Francisco	Seattle	Washington
Birmingham, Ala.	1,699	812	548	1,890	2,443	2,779	624
Boston, Mass.	2,834	576	1,196	2,427	3,186	3,098	435
Buffalo, N. Y.	2,245	223	729	1,964	2,723	2,660	407
Chicago, Ill.	1,816	463	300	1,440	2,199	2,076	698
Cleveland, Ohio	2,057	131	541	1,789	2,548	2,608	368
Dallas, Tex.	1,040	1,278	676	1,270	1,807	2,153	1,399
Denver, Colo.	828	1,465	901	530	1,270	1,403	1,614
Detroit, Mich.	2,029	287	515	1,712	2,471	2,531	522
El Paso, Tex.	413	1,793	1,209	1,137	1,221	2,078	2,026
Houston, Tex.	1,163	1,394	821	1,537	2,019	2,449	1,511
Indianapolis, Ind.	1,757	359	241	1,547	2,306	2,262	563
Kansas City, Mo.	1,346	853	257	1,155	1,914	2,047	1,051
Los Angeles, Calif.	405	2,621	1,916	735	415	1,177	2,799
Louisville, Ky.	1,783	395	267	1,679	2,438	2,547	599
Memphis, Tenn.	1,474	804	301	1,619	2,195	2,532	925
Miami, Fla.	2,411	1,276	1,269	2,607	3,270	3,582	1,111
Minneapolis, Minn.	1,742	897	562	1,283	2,141	1,642	1,132
New Orleans, La.	1,548	1,169	701	1,801	2,297	2,683	1,150
New York, N. Y.	2,474	368	968	2,290	3,049	2,926	227
Omaha, Nebr.	1,378	932	469	954	1,713	1,773	1,167
Philadelphia, Pa.	2,534	298	898	2,184	2,943	2,832	135
Phoenix, Ariz. ....	.....	2,116	1,516	768	827	1,531	2,399
Pittsburgh, Pa.	2,116	.....	600	1,886	2,645	2,438	235
St. Louis, Mo.	1,516	600	.....	1,412	2,171	2,259	804
Salt Lake City, Utah	763	1,886	1,412	.....	759	889	1,778
San Francisco, Calif.	827	2,645	2,171	759	.....	874	2,885
Seattle, Wash.	1,531	2,438	2,259	889	874	.....	2,673
Washington, D. C.	2,399	235	804	1,778	2,885	2,673	.....

Air Distances Between U. S. Cities

Source: U. S. Coast and Geodetic Survey.

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala. ....	.....	1,052	776	578	618	581	1,095
Boston, Mass.	1,052	....	400	851	551	1,551	1,769
Buffalo, N. Y.	776	400	....	454	173	1,198	1,370
Chicago, Ill.	578	851	454	....	308	803	920
Cleveland, Ohio	618	551	173	308	....	1,025	1,227
Dallas, Tex.	581	1,551	1,198	803	1,025	....	663
Denver, Colo.	1,095	1,769	1,370	920	1,227	663	....
Detroit, Mich.	641	613	216	238	90	999	1,156
El Paso, Tex.	1,152	2,072	1,692	1,252	1,525	572	557
Houston, Tex.	567	1,605	1,286	940	1,114	225	879
Indianapolis, Ind.	433	807	435	165	263	763	1,000
Kansas City, Mo.	579	1,251	861	414	700	451	558
Los Angeles, Calif.	1,802	2,596	2,198	1,745	2,049	1,240	831
Louisville, Ky.	331	826	483	269	311	726	1,038
Memphis, Tenn.	217	1,137	803	482	630	420	879
Miami, Fla.	665	1,255	1,181	1,188	1,087	1,111	1,726
Minneapolis, Minn.	862	1,123	731	355	630	862	700
New Orleans, La.	312	1,359	1,086	833	924	443	1,082
New York, N. Y.	864	188	292	713	405	1,374	1,631
Omaha, Nebr.	732	1,282	883	432	739	586	488
Philadelphia, Pa.	783	271	279	666	360	1,299	1,579
Phoenix, Ariz.	1,456	2,300	1,906	1,453	1,749	887	586
Pittsburgh, Pa.	608	483	178	410	115	1,070	1,320
St. Louis, Mo.	400	1,038	662	262	492	547	796
Salt Lake City, Utah	1,466	2,099	1,699	1,260	1,568	999	371
San Francisco, Calif.	2,013	2,699	2,300	1,858	2,166	1,483	949
Seattle, Wash.	2,082	2,493	2,117	1,737	2,026	1,681	1,021
Washington, D. C.	661	393	292	597	306	1,185	1,494

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	641	1,152	567	433	579	1,802	331
Boston, Mass.	613	2,072	1,605	807	1,251	2,596	826
Buffalo, N. Y.	216	1,692	1,286	435	861	2,198	483
Chicago, Ill.	238	1,252	940	165	414	1,745	269
Cleveland, Ohio	90	1,525	1,114	263	700	2,049	311
Dallas, Tex.	999	572	225	763	451	1,240	726
Denver, Colo.	1,156	557	879	1,000	558	831	1,038
Detroit, Mich. ....	....	1,479	1,105	240	645	1,983	316
El Paso, Tex.	1,479	....	676	1,264	839	701	1,254
Houston, Tex.	1,105	676	....	865	644	1,374	803
Indianapolis, Ind.	240	1,264	865	....	453	1,809	107
Kansas City, Mo.	645	839	644	453	....	1,356	480
Los Angeles, Calif.	1,983	701	1,374	1,809	1,356	....	1,829
Louisville, Ky.	316	1,254	803	107	480	1,829	....
Memphis, Tenn.	623	976	484	384	369	1,603	320
Miami, Fla.	1,152	1,643	968	1,024	1,241	2,339	919
Minneapolis, Minn.	543	1,157	1,056	511	413	1,524	605
New Orleans, La.	939	983	318	712	680	1,673	623
New York, N. Y.	482	1,905	1,420	646	1,097	2,451	652
Omaha, Nebr.	669	878	794	525	166	1,315	580
Philadelphia, Pa.	443	1,836	1,341	585	1,038	2,394	582
Phoenix, Ariz.	1,690	346	1,017	1,499	1,049	357	1,508
Pittsburgh, Pa.	205	1,590	1,137	330	781	2,136	344
St. Louis, Mo.	455	1,034	679	231	238	1,589	242
Salt Lake City, Utah	1,492	689	1,200	1,356	925	579	1,402
San Francisco, Calif.	2,091	995	1,645	1,949	1,506	347	1,986
Seattle, Wash.	1,938	1,376	1,891	1,872	1,506	959	1,943
Washington, D. C.	396	1,728	1,220	494	945	2,300	476

Air Distances Between U. S. Cities

Source: U. S. Coast and Geodetic Survey.

Cities	Memphis	Miami	Minneapolis	New Orleans	New York	Omaha	Philadelphia
Birmingham, Ala.	217	665	862	312	864	732	783
Boston, Mass.	1,137	1,255	1,123	1,359	188	1,282	271
Buffalo, N. Y.	803	1,181	731	1,086	292	883	279
Chicago, Ill.	482	1,188	355	833	713	432	666
Cleveland, Ohio	630	1,087	630	924	405	739	360
Dallas, Tex.	420	1,111	862	443	1,374	586	1,299
Denver, Colo.	879	1,726	700	1,082	1,631	488	1,579
Detroit, Mich.	623	1,152	543	939	482	669	443
El Paso, Tex.	976	1,643	1,157	983	1,905	878	1,836
Houston, Tex.	484	968	1,056	318	1,420	794	1,341
Indianapolis, Ind.	384	1,024	511	712	646	525	585
Kansas City, Mo.	369	1,241	413	680	1,097	166	1,038
Los Angeles, Calif.	1,603	2,339	1,524	1,673	2,451	1,315	2,394
Louisville, Ky.	320	919	605	623	652	580	582
Memphis, Tenn.		872	699	358	957	529	881
Miami, Fla.	872		1,511	669	1,092	1,397	1,019
Minneapolis, Minn.	699	1,511		1,051	1,018	290	985
New Orleans, La.	358	669	1,051		1,171	847	1,089
New York, N. Y.	957	1,092	1,018	1,171		1,144	83
Omaha, Nebr.	529	1,397	290	847	1,144		1,094
Philadelphia, Pa.	881	1,019	985	1,089	83	1,094	
Phoenix, Ariz.	1,263	1,982	1,280	1,316	2,145	1,036	2,083
Pittsburgh, Pa.	660	1,010	743	919	317	836	259
St. Louis, Mo.	240	1,061	466	598	875	354	811
Salt Lake City, Utah	1,250	2,089	987	1,434	1,972	833	1,925
San Francisco, Calif.	1,802	2,594	1,584	1,926	2,571	1,429	2,523
Seattle, Wash.	1,867	2,734	1,395	2,101	2,408	1,369	2,380
Washington, D. C.	765	923	934	966	205	1,014	123

Cities	Phoenix	Pittsburgh	St. Louis	Salt Lake City	San Francisco	Seattle	Washington
Birmingham, Ala.	1,456	608	400	1,466	2,013	2,082	661
Boston, Mass.	2,300	483	1,038	2,099	2,699	2,493	393
Buffalo, N. Y.	1,906	178	662	1,699	2,300	2,117	292
Chicago, Ill.	1,453	410	262	1,260	1,858	1,737	597
Cleveland, Ohio	1,749	115	492	1,568	2,166	2,026	306
Dallas, Tex.	887	1,070	547	999	1,483	1,681	1,185
Denver, Colo.	586	1,320	796	371	949	1,021	1,494
Detroit, Mich.	1,690	205	455	1,492	2,091	1,938	396
El Paso, Tex.	346	1,590	1,034	689	995	1,376	1,728
Houston, Tex.	1,017	1,137	679	1,200	1,645	1,891	1,220
Indianapolis, Ind.	1,499	330	231	1,356	1,949	1,872	494
Kansas City, Mo.	1,049	781	238	925	1,506	1,506	945
Los Angeles, Calif.	357	2,136	1,589	579	347	959	2,300
Louisville, Ky.	1,508	344	242	1,402	1,986	1,943	476
Memphis, Tenn.	1,263	660	240	1,250	1,802	1,867	765
Miami, Fla.	1,982	1,010	1,061	2,089	2,594	2,734	923
Minneapolis, Minn.	1,280	743	466	987	1,584	1,395	934
New Orleans, La.	1,316	919	598	1,434	1,926	2,101	966
New York, N. Y.	2,145	317	875	1,972	2,571	2,408	205
Omaha, Nebr.	1,036	836	354	833	1,429	1,369	1,014
Philadelphia, Pa.	2,083	259	811	1,925	2,523	2,380	123
Phoenix, Ariz.		1,828	1,272	504	653	1,114	1,983
Pittsburgh, Pa.	1,828		559	1,668	2,264	2,138	192
St. Louis, Mo.	1,272	559		1,162	1,744	1,724	712
Salt Lake City, Utah	504	1,668	1,162		600	701	1,848
San Francisco, Calif.	653	2,264	1,744	600		678	2,442
Seattle, Wash.	1,114	2,138	1,724	701	678		2,329
Washington, D. C.	1,983	192	712	1,848	2,442	2,329	

Air Distances Between World Cities

Source: *Encyclopædia Britannica*.

Cities	Buenos						
	Berlin	Aires	Cairo	Calcutta	Capetown	Caracas	Chicago
Berlin, Germany		7,402	1,795	4,368	5,981	5,247	4,405
Buenos Aires, Argentina	7,402		7,345	10,265	4,269	3,168	5,598
Cairo, Egypt	1,795	7,345		3,539	4,500	6,338	6,129
Calcutta, India	4,368	10,265	3,539		6,024	9,605	7,980
Capetown, South Africa	5,981	4,269	4,500	6,024		6,365	8,494
Caracas, Venezuela	5,247	3,168	6,338	9,605	6,365		2,501
Chicago, Ill., U. S.	4,405	5,598	6,129	7,980	8,494	2,501	
Hong Kong (Victoria)	5,440	11,472	5,061	1,648	7,375	10,167	7,793
Honolulu, Hawaii, U. S.	7,309	7,561	8,838	7,047	11,534	6,013	4,250
Istanbul, Turkey	1,078	7,611	768	3,638	5,154	6,048	5,477
Lisbon, Portugal	1,436	5,956	2,363	5,638	5,325	4,041	3,990
London, England	579	6,916	2,181	4,947	6,012	4,660	3,950
Los Angeles, Calif., U. S.	5,724	6,170	7,520	8,090	9,992	3,632	1,745
Manila, Philippines	6,132	11,051	5,704	2,203	7,486	10,620	8,143
Mexico City, Mexico	6,047	4,592	7,688	9,492	8,517	2,232	1,691
Montreal, Canada	3,729	5,615	5,414	7,607	7,931	2,449	744
Moscow, U.S.S.R.	1,004	8,376	1,803	3,321	6,300	6,173	4,974
New York, N. Y., U. S.	3,965	5,297	5,602	7,918	7,764	2,132	713
Paris, France	545	6,870	1,995	4,883	5,807	4,736	4,134
Rio de Janeiro, Brazil	6,220	1,200	6,146	9,377	3,773	2,810	5,296
Rome, Italy	734	6,929	1,320	4,482	5,249	5,196	4,808
San Francisco, Calif., U. S.	5,661	6,467	7,364	7,814	10,247	3,904	1,858
Shanghai, China	5,218	12,201	5,183	2,117	8,061	9,501	7,061
Stockholm, Sweden	504	7,808	2,111	4,195	6,444	5,420	4,278
Sydney, Australia	10,006	7,330	8,952	5,685	6,843	9,513	9,272
Tokyo, Japan	5,540	11,408	5,935	3,194	9,156	8,799	6,299
Warsaw, Poland	320	7,662	1,630	4,048	5,958	5,517	4,667
Washington, D. C., U. S.	4,169	5,218	5,800	8,084	7,901	2,059	597

Cities	Los						
	Hong Kong	Honolulu	Istanbul	Lisbon	London	Angeles	Manila
Berlin, Germany	5,440	7,309	1,078	1,436	579	5,724	6,132
Buenos Aires, Argentina	11,472	7,561	7,611	5,956	6,916	6,170	11,051
Cairo, Egypt	5,061	8,838	768	2,363	2,181	7,520	5,704
Calcutta, India	1,648	7,047	3,638	5,638	4,947	8,090	2,203
Capetown, South Africa	7,375	11,534	5,154	5,325	6,012	9,992	7,486
Caracas, Venezuela	10,167	6,013	6,048	4,041	4,660	3,632	10,620
Chicago, Ill., U. S.	7,793	4,250	5,477	3,990	3,950	1,745	8,143
Hong Kong (Victoria)		5,449	4,984	6,853	5,982	7,195	693
Honolulu, Hawaii, U. S.	5,549		8,109	7,820	7,228	2,574	5,299
Istanbul, Turkey	4,984	8,109		2,012	1,552	6,783	5,664
Lisbon, Portugal	6,853	7,820	2,012		985	5,621	7,546
London, England	5,982	7,228	1,552	985		5,382	6,672
Los Angeles, Calif., U. S.	7,195	2,574	6,783	5,621	5,382		7,261
Manila, Philippines	693	5,299	5,664	7,546	6,672	7,261	
Mexico City, Mexico	8,782	3,779	7,110	5,390	5,550	1,546	8,835
Montreal, Canada	7,729	4,910	4,789	3,246	3,282	2,427	8,186
Moscow, U.S.S.R.	4,439	7,037	1,091	2,427	1,555	6,003	5,131
New York, N. Y., U. S.	8,054	4,964	4,975	3,364	3,458	2,451	8,498
Paris, France	5,985	7,438	1,400	904	213	5,588	6,677
Rio de Janeiro, Brazil	11,021	8,285	6,389	4,796	5,766	6,331	11,259
Rome, Italy	5,768	8,022	843	1,161	887	6,732	6,457
San Francisco, Calif., U. S.	6,897	2,393	6,703	5,666	5,357	347	6,967
Shanghai, China	764	4,941	4,962	6,654	5,715	6,438	1,150
Stockholm, Sweden	5,113	6,862	1,348	1,856	890	5,454	5,797
Sydney, Australia	4,584	5,073	9,294	11,302	10,564	7,530	3,944
Tokyo, Japan	1,794	3,853	5,560	6,915	5,940	5,433	1,866
Warsaw, Poland	5,144	7,355	863	1,715	899	5,922	5,837
Washington, D. C., U. S.	8,147	4,519	5,215	3,562	3,663	2,300	8,562

Air Distances Between World Cities

Source: Encyclopaedia Britannica.

Cities	Mexico City	Montreal	Moscow	New York	Paris	Rio de Janeiro	Rome
Berlin, Germany	6,047	3,729	1,004	3,965	548	6,220	734
Buenos Aires, Argentina	4,592	5,615	8,376	5,297	6,870	1,200	6,929
Cairo, Egypt	7,688	5,414	1,803	5,602	1,995	6,146	1,320
Calcutta, India	9,492	7,607	3,321	7,918	4,883	9,377	4,482
Capetown, South Africa	8,517	7,931	6,300	7,764	5,807	3,773	5,249
Caracas, Venezuela	2,232	2,449	6,173	2,132	4,736	2,810	5,196
Chicago, Ill., U. S.	1,691	744	4,974	713	4,134	5,296	4,808
Hong Kong (Victoria)	8,782	7,729	4,439	8,054	5,985	11,021	5,768
Honolulu, Hawaii, U. S.	3,779	4,910	7,037	4,964	7,438	8,285	8,022
Istanbul, Turkey	7,110	4,789	1,091	4,975	1,400	6,389	843
Lisbon, Portugal	5,390	3,246	2,427	3,364	904	4,796	1,161
London, England	5,550	3,282	1,555	3,458	213	5,766	887
Los Angeles, Calif., U. S.	1,546	2,427	6,003	2,451	5,588	6,331	6,732
Manila, Philippines	8,835	8,186	5,131	8,498	6,677	11,259	6,457
Mexico City, Mexico		2,318	6,663	2,094	5,716	4,771	6,366
Montreal, Canada	2,318		4,386	320	3,422	5,097	4,080
Moscow, U.S.S.R.	6,663	4,386		4,665	1,544	7,175	1,474
New York, N. Y., U. S.	2,094	320	4,665		3,624	4,817	4,281
Paris, France	5,716	3,422	1,544	3,624		5,699	697
Rio de Janeiro, Brazil	4,771	5,097	7,175	4,817	5,699		5,684
Rome, Italy	6,366	4,080	1,474	4,281	697	5,684	
San Francisco, Calif., U. S.	1,887	2,539	5,871	2,571	5,558	6,621	6,240
Shanghai, China	8,022	7,053	4,235	7,371	5,754	11,336	5,677
Stockholm, Sweden	5,959	3,667	762	3,924	958	6,651	1,234
Sydney, Australia	8,052	9,954	9,012	9,933	10,544	8,306	10,136
Tokyo, Japan	7,021	6,383	4,647	6,740	6,034	11,533	6,135
Warsaw, Poland	6,365	4,009	715	4,344	849	6,467	817
Washington, D. C., U. S.	1,887	488	4,858	205	3,829	4,796	4,434

Cities	San Francisco	Shanghai	Stockholm	Sydney	Tokyo	Warsaw	Washington
Berlin, Germany	5,661	5,218	504	10,006	5,540	320	4,169
Buenos Aires, Argentina	6,467	12,201	7,808	7,330	11,408	7,662	5,218
Cairo, Egypt	7,364	5,183	2,111	8,952	5,935	1,630	5,800
Calcutta, India	7,814	2,117	4,195	5,685	3,194	4,048	8,084
Capetown, South Africa	10,247	8,061	6,444	6,843	9,156	5,958	7,901
Caracas, Venezuela	3,904	9,501	5,420	9,513	8,799	5,517	2,059
Chicago, Ill., U. S.	1,858	7,061	4,278	9,272	6,299	4,667	597
Hong Kong (Victoria)	6,897	764	5,113	4,584	1,794	5,144	8,147
Honolulu, Hawaii, U. S.	2,393	4,941	6,862	5,073	3,853	7,355	4,519
Istanbul, Turkey	6,703	4,962	1,348	9,294	5,560	863	5,215
Lisbon, Portugal	5,666	6,654	1,856	11,302	6,915	1,715	3,562
London, England	5,357	5,715	890	10,564	5,940	899	3,663
Los Angeles, Calif., U. S.	347	6,438	5,454	7,530	5,433	5,922	2,300
Manila, Philippines	6,967	1,150	5,797	3,944	1,866	5,837	8,562
Mexico City, Mexico	1,887	8,022	5,959	8,052	7,021	6,365	1,887
Montreal, Canada	2,539	7,053	3,667	9,954	6,383	4,009	488
Moscow, U.S.S.R.	5,871	4,235	762	9,012	4,647	715	4,858
New York, N. Y., U. S.	2,571	7,371	3,924	9,933	6,740	4,344	205
Paris, France	5,558	5,754	958	10,544	6,034	849	3,829
Rio de Janeiro, Brazil	6,621	11,336	6,651	8,306	11,533	6,467	4,796
Rome, Italy	6,240	5,677	1,234	10,136	6,135	817	4,434
San Francisco, Calif., U. S.		6,140	5,361	7,416	5,135	5,841	2,442
Shanghai, China	6,140		4,825	4,899	1,097	4,951	7,448
Stockholm, Sweden	5,361	4,825		9,696	5,051	501	4,123
Sydney, Australia	7,416	4,899	9,696		4,866	9,696	9,758
Tokyo, Japan	5,135	1,097	5,051	4,866		5,249	6,772
Warsaw, Poland	5,841	4,951	501	9,696	5,249		4,457
Washington, D. C., U. S.	2,442	7,448	4,123	9,758	6,772	4,457	

The National Park System of the United States

Source: National Park Service.

The National Park System of the United States, administered by the National Park Service, a bureau of the Department of the Interior, embraces a total of 177 areas, containing approximately 22,384,000 acres in Federal ownership. Started with the establishment of Yellowstone National Park in 1872, the system includes not only the most extraordinary and spectacular scenic exhibits in the United States but also a large number of sites distinguished for their historic or prehistoric importance or scientific interest. The number and extent of the various types of areas which comprise the system, as of January 1, 1959, are as follows:

Type of area	Number	Federal land (acres)	Lands within exterior boundaries not federally owned (acres)	Total lands within exterior boundaries (acres)
National Parks	29	13,105,529.67	354,107.35	13,459,637.02
National Historical Parks	8	31,967.77	5,349.51	37,317.28
National Monuments	83	8,988,408.86	149,957.22	9,138,366.08
National Military Parks	11	24,497.93	2,281.35	26,779.28
National Memorial Park	1	68,708.03	1,666.27	70,374.30
National Battlefield Parks	3	5,529.66	2,170.03	7,699.69
National Battlefield Sites	5	188.63	547.35	736.98
National Historic Sites	10	1,354.07	2.12	1,356.19
National Memorials	12	4,436.81	50.63	4,487.44
National Cemeteries	10	215.10	5.00	220.10
National Seashore Recreational Area	1	24,705.23	3,794.77	28,500.00
National Parkways	3	89,813.95	23,074.21	112,888.16
National Capital Parks ¹	1	38,527.96	1,444.00	39,971.96
Total, National Park System	177	22,383,883.67	544,449.81	22,928,333.48

¹ Includes Catoctin Mountain Park, Chesapeake and Ohio Canal, Prince William Forest Park, Baltimore-Washington Parkway, Suitland Parkway among the 781 units administered by National Capital Parks.

National Parks

Name, location and year established as National Park	Area in U. S. ownership, acres	Outstanding characteristics
Acadia (Maine), 1919	30,847.27	Rugged seashore on Mt. Desert Island and adjacent mainland
Big Bend (Texas), 1944	698,620.70	Mountains and desert bordering the Rio Grande
Bryce Canyon (Utah), 1928	36,010.38	Area of grotesque eroded rocks brilliantly colored
Carlsbad Caverns (N. Mex.), 1930	45,846.59	One of the world's largest known caves; spectacular flight of bats
Crater Lake (Oregon), 1902	160,290.33	Deep blue lake in crater of inactive volcano
Everglades (Florida), 1947	1,213,120.00	Subtropical area with abundant bird and animal life
Glacier (Montana), 1910	1,009,109.90	Rocky Mountain scenery with many glaciers and lakes
Grand Canyon (Arizona), 1919	673,203.35	Mile deep gorge, 4 to 18 miles wide, 217 miles long (105 in park)
Grand Teton (Wyoming), 1929	302,068.92	Picturesque range of high mountain peaks
Great Smoky Mts. (N. C.-Tenn.), 1930	507,869.50	Highest mountain range east of Black Hills; luxuriant plant life
Hawaii (Hawaii), 1916	187,847.61	Spectacular volcanic area; luxuriant vegetation at lower levels
Hot Springs (Arkansas), 1921	986.11	47 mineral hot springs said to have therapeutic value
Isle Royale (Michigan), 1940	539,338.51	Largest wilderness island in Lake Superior; great moose herd
Kings Canyon (California), 1940	453,718.38	Huge canyons, high mountains; giant sequoias
Lassen Volcanic (California), 1916	105,104.15	Exhibits of impressive volcanic phenomena
Mammoth Cave (Kentucky), 1936	50,695.73	Vast limestone labyrinth with underground river
Mesa Verde (Colorado), 1906	51,017.87	Best preserved prehistoric cliff dwellings in United States
Mount McKinley (Alaska), 1917	1,939,354.04	Highest mountain in North America; spectacular wildlife
Mount Rainier (Washington), 1899	241,571.09	Single-peak glacial system; dense forests, flowered meadows
Olympic (Washington), 1938	888,557.79	Finest mountain wilderness of Pacific Northwest
Platt (Oklahoma), 1906	911.97	Cold mineral springs with distinctive properties
Rocky Mountain (Colorado), 1915	255,947.58	Section of the Rocky Mountains; 65 named peaks over 10,000 feet
Sequoia (California), 1890	385,428.32	Giant sequoias; magnificent High Sierra scenery, including Mt. Whitney
Shenandoah (Virginia), 1935	193,177.75	Tree-covered mountains; scenic Skyline Drive
Virgin Islands (U. S. V. Islands), 1956	5,134.58	Beaches; lush hills; prehistoric Carib Indian relics
Wind Cave (South Dakota), 1903	28,059.26	Limestone caverns in Black Hills, buffalo herd
Yellowstone (Wyoming-Montana-Idaho), 1872	2,213,206.55	World's greatest geyser area; spectacular falls and canyon; one of world's great wildlife sanctuaries
Yosemite (California), 1890	758,033.24	Mountains; inspiring gorges and waterfalls; giant sequoias
Zion (Utah), 1919	130,452.20	Multicolored gorge in heart of southern Utah desert

National Historical Parks

Name and location	Acreage in U. S. ownership
Abraham Lincoln (Kentucky)	116.50
Appomattox Court House (Va.)	945.65
Chalmette (Louisiana)	69.61
Colonial (Virginia)	7,270.05
Cumberland Gap (Ky.-Tenn.-Va.)	20,184.20
Independence (Pennsylvania)	19.95
Morristown (New Jersey)	957.96
Saratoga (New York)	2,403.85

National Monuments

Ackia Battleground (Miss.)	49.15
Andrew Johnson (Tennessee)	16.33
Arches (Utah)	34,249.94
Aztec Ruins (New Mexico)	27.14
Badlands (South Dakota)	98,646.39
Bandelier (New Mexico)	27,048.89
Big Hole Battlefield (Montana)	200.00
Black Canyon of the Gunnison (Colorado)	13,535.96
Booker T. Washington (Va.)	164.60
Cabrillo (California)	.50
Canyon de Chelly (Arizona)	83,840.00
Capitol Reef (Utah)	36,115.65
Capulin Mountain (N. Mex.)	680.42
Casa Grande (Arizona)	472.50
Castillo de San Marcos (Fla.)	18.51
Castle Clinton (New York)	1.00
Cedar Breaks (Utah)	6,172.20
Chaco Canyon (New Mexico)	20,989.35
Channel Islands (California)	26,819.26
Chiricahua (Arizona)	10,480.90
Colorado (Colorado)	17,606.76
Craters of the Moon (Idaho)	48,003.86
Custer Battlefield (Montana)	765.34
Death Valley (Calif.-Nev.)	1,879,048.24
Devils Postpile (California)	798.46
Devils Tower (Wyoming)	1,266.91
Dinosaur (Utah-Colorado)	190,962.13
Edison Laboratory (New Jersey)	1.51
Effigy Mounds (Iowa)	1,204.36
El Morro (New Mexico)	880.80
Fort Frederica (Georgia)	94.40
Fort Jefferson (Florida)	47,125.00
Fort Laramie (Wyoming)	214.41
Fort Matanzas (Florida)	227.76
Fort McHenry (Maryland)	43.26
Fort Pulaski (Georgia)	5,361.62
Fort Sumter (South Carolina)	2.40
Fort Union (New Mexico)	720.60
Fort Vancouver (Wash.)	74.71
George Washington Birthplace (Virginia)	393.68
George Washington Carver (Missouri)	210.00
Gila Cliff Dwellings (N. Mex.)	160.00
Glacier Bay (Alaska)	2,274,248.44
Gran Quivira (New Mexico)	450.94
Grand Canyon (Arizona)	193,040.00
Great Sand Dunes (Colorado)	34,979.88
Harpers Ferry (W. Va.-Md.)	469.23
Homestead (Nebraska)	162.73
Hovenweep (Utah-Colorado)	505.43
Jewel Cave (South Dakota)	1,274.56

Name and location	Acreage in U. S. ownership
Joshua Tree (California)	505,131.63
Katmai (Alaska)	2,697,590.00
Lava Beds (California)	46,238.69
Lehman Caves (Nevada)	640.00
Meriwether Lewis (Tennessee)	300.00
Montezuma Castle (Arizona)	783.09
Mound City Group (Ohio)	67.50
Muir Woods (California)	485.18
Natural Bridges (Utah)	2,649.70
Navajo (Arizona)	360.00
Ocmulgee (Georgia)	683.48
Oregon Caves (Oregon)	480.00
Organ Pipe Cactus (Arizona)	328,691.01
Perry's Victory (Ohio)	14.25
Petrified Forest (Arizona)	86,937.23
Pinnacles (California)	12,817.77
Pipe Spring (Arizona)	40.00
Pipestone (Minnesota)	275.93
Rainbow Bridge (Utah)	160.00
Saguaro (Arizona)	60,987.60
Scotts Bluff (Nebraska)	2,171.35
Sitka (Alaska)	54.16
Statue of Liberty (New York)	10.38
Sunset Crater (Arizona)	3,040.00
Timpanogos Cave (Utah)	250.00
Tonto (Arizona)	1,120.00
Tumacacori (Arizona)	10.00
Tuzigoot (Arizona)	42.67
Walnut Canyon (Arizona)	1,641.62
White Sands (New Mexico)	140,247.04
Whitman (Washington)	45.84
Wupatki (Arizona)	34,607.03
Yucca House (Colorado)	9.60

National Military Parks

Chickamauga and Chattanooga (Georgia-Tennessee)	8,189.64
Fort Donelson (Tennessee)	102.54
Fredericksburg and Spotsylvania (Virginia)	2,467.73
Gettysburg (Pennsylvania)	2,772.27
Guilford Courthouse (N. C.)	150.53
Kings Mountain (S. C.)	4,012.00
Moore's Creek (North Carolina)	42.23
Petersburg (Virginia)	1,505.55
Shiloh (Tennessee)	3,601.78
Stones River (Tennessee)	323.86
Vicksburg (Mississippi)	1,329.80

National Memorial Park

Theodore Roosevelt (N. Dak.)	68,703.03
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National Battlefield Parks

Kennesaw Mountain (Georgia)	3,094.21
Manassas (Virginia)	1,738.84
Richmond (Virginia)	691.61

National Battlefield Sites

Antietam (Maryland)	183.63
Brices Cross Roads (Mississippi)	1.00
Cowpens (South Carolina)	1.00
Fort Necessity (Pennsylvania)	2.00
Tupelo (Mississippi)	1.00

National Historic Sites

Name and location	Acreage in U.S. ownership
Adams (Massachusetts)	4.77
Fort Raleigh (North Carolina)	18.50
Harapton (Maryland)	45.42
Home of Franklin D. Roosevelt (New York)	93.69
Hopewell Village (Pa.)	848.06
Jefferson National Expansion Memorial (Missouri)	82.58
Old Phila. Custom House (Pa.) . . . . .	.79
Salem Maritime (Massachusetts)	8.61
San Juan (Puerto Rico)	40.00
Vanderbilt Mansion (New York)	211.65

National Memorials

Coronado (Arizona)	2,745.33
Custis-Lee Mansion (Virginia)	2.71
De Soto (Florida)	24.18
Federal Hall (N. Y.) . . . . .	.45
Fort Caroline (Florida)	119.51
House Where Lincoln Died (D. C.) . . . . .	.05
Lincoln Memorial (D. C.) . . . . .	.61
Lincoln Museum (D. C.) . . . . .	.18
Mount Rushmore (S. Dak.)	1,227.82
Thomas Jefferson (D. C.)	1.20
Washington Monument (D. C.) . . . . .	.37
Wright Brothers (N. C.)	314.40

National Cemeteries¹

Name and location	Acreage in U.S. ownership
Antietam (Maryland)	11.36
Battleground (D. C.)	1.03
Fort Donelson (Tennessee)	15.34
Fredericksburg (Virginia)	12.00
Gettysburg (Pennsylvania)	15.55
Poplar Grove (Virginia)	8.72
Shiloh (Tennessee)	10.25
Stones River (Tennessee)	20.09
Vicksburg (Mississippi)	117.85
Yorktown (Virginia)	2.91

National Seashore Recreational Area

Cape Hatteras (North Carolina)	24,705.23
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National Parkways

Blue Ridge (N. C.-Va.)	59,637.85
George Washington Memorial (Va. Md.)	3,730.41
Natchez Trace (Tenn.-Ala.-Miss.)	26,445.69

National Capital Parks

National Capital Parks (D. C.-Va.-Md.-W. Va.)	38,527.96
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¹ For Arlington National Cemetery, see index. It is not included here because it is under the jurisdiction of the Department of the Army rather than of the National Park Service.

Museums of the United States

Source: Questionnaires to Museums.

NEW YORK CITY

American Academy of Arts and Letters: 633 W. 155th St., New York 32. Open: wkdys. & Sun. during exhib. 2-5 (closed Mon.). Otherwise by appt. Free.

Painting, sculpture by members of Academy and Natl. Inst. of Arts & Letters. Fall exhibition of Hassam Fund Purchases. Two winter exhibitions: on special theme, and Candidates for Grants in Art. Spring exhibition by new members and recipients of grants and honors.

American Museum of Natural History: Central Park W. at 79th St., New York 24. Open: wkdys. 10-5, Sun. & hldys. 1-5. Free.

All branches of natural sciences with exhibits including astronomy at American Museum-Hayden Planetarium.

Brooklyn Museum: Eastern Pkwy., Brooklyn 38, N. Y. Open: wkdys. 10-5, Sun. & hldys. 1-5 (closed Xmas). Free.

American painting, Colonial to modern. 19th-20th-century European painting. Modern sculpture. Egyptian and primitive art. Ancient art and art of Near and Far East. Period rooms.

Cloisters: Ft. Tryon Pk., New York 40. Open: wkdys. 10-5 (closed Mon.), Sun., hldys. 1-5 (May-Sept., Sun., 1-6). Free.

Cloisters, chapel, chapter house reconstructed from parts of old European structures. Frescoes, polychromed statues, stained glass, Gothic tapestries. Branch of Metropolitan Museum of Art.

Frick Collection: 1 E. 70th St., New York 21. Open: wkdys. 10-5 (closed Mon. & mo. of Aug.), Sun. & hldys. 1-5. Free.

Paintings, prints, drawings of 14th to 19th centuries. Italian Renaissance and French sculpture and furniture. Chinese and French porcelain. Concerts, lectures.

Guggenheim (Solomon R.) Museum, Guggenheim Foundation: 5th Ave. at 88th St., New York 21. Open: wkdys. 10-6 (closed Mon.), Sun. 12-6. Free.

Works of leading 20th century European and American painters and sculptors.

Hispanic Society of America (Museum & Library): Broadway between W. 155th & 156th Sts., New York 32. Museum open: wkdys. 10-4:30, Sun. 2-5 (closed Mon., July 4, Thns. Day, Xmas). Library open: wkdys. 1-4:30 (closed Sun., Mon., hldys., mo. of Aug.). Free.

Paintings, sculpture, decorative arts, manuscripts and incunabula, representative of Hispanic culture. Works on Hispanic art, history, and published literature of which much is devoted to objects in the collection.

Jewish Museum: 5th Ave. at 92nd St., New York 28. Open: Mon.-Thurs. 1-5 (closed Fri., Sat.), Sun. 11-6. Free.

Jewish ceremonial and historical objects. Works of art, past and contemporary. Junior gallery, child's map of Israel.

Metropolitan Museum of Art: 5th Ave. at 82nd St., New York 28. Open: wkdys. 10-5 (closed Mon.), Sun., hldys. 1-5. Free. Extensive collection of European and American paintings, decorative arts, prints, Egyptian, Asiatic, Classical art. Musical instruments, arms and armor. American period rooms, Costumes and textiles. *See also* Cloisters.

Museum of Modern Art: 11 W. 53rd St., New York 19. Open: wkdys. 11-6, Sun. 1-7. Adm. 95c (children 25c).

Founded 1929 to aid study of modern art and its application to manufacturing and practical life. Constantly changing exhibitions of contemporary painting, sculpture, prints, photography, architecture, industrial design, films.

Museum of the American Indian, Heye Foundation: Broadway at 155th St., New York 32. Open: Tues.-Sat. 1-5 (closed Sun., Mon., hldys., mos. of July & Aug.). Free.

Archaeology and ethnology of Americas from Arctic Circle to Tierra del Fuego.

Museum of the City of New York: 5th Ave. at 104th St., New York 29. Open: wkdys. 10-5 (closed Mon.), Sun., hldys. 1-5, closed Xmas. Free.

History and life of New York City. Period costumes, furniture, miniature scenes, portraits, paintings, prints, manuscripts, theater and music collection, silver, horse car, dolls and doll houses.

National Academy of Design: 1083 5th Ave. (at 90th St.) New York 28. Open: wkdys. & Sun. 1-6 (during exhibitions).

Special annual exhibitions by selected organizations Oct. thru May.

New York Historical Society: Central Park W. at 77th St., New York 24. Museum open: wkdys. & Sun. 1-5, (Sat. 10-5, closed Mon.). Library open: Mon.-Sat., 10-5. (Closed NY Day, July 4, Thnks. Day, Xmas, month of Aug.). Free.

New York city and state historical exhibits. Early American paintings and portraits. Period rooms. Audubon watercolors. John Rogers statuettes.

Roosevelt (Theodore) Museum: 28 E. 20th St., New York 3. Open: wkdys. 10-5 (closed Mon.), Sun. & hldys. 1-5 (closed NY Day, Good Fri., Easter, Thnks. Day, Xmas). Free.

Restored birthplace of Roosevelt. Mounted lion shot by him in Africa. Photographs, letters, trophies, personal items.

Whitney Museum of American Art: 22 W. 54th St., New York 19. Open: wkdys. & Sun. 1-5 (closed major holidays). Free.

Sculpture, paintings, watercolors, drawings by 20th-century American artists. Exhibitions of contemporary and historical American art.

CHICAGO

Art Institute of Chicago: Michigan Ave. at Adams St., Chicago 3, Ill. Open: wkdys. 9-5, Sun. 12-5. Adm. 25c. (free Wed., Sat., Sun., hldys.).

Paintings, sculpture, prints, drawings. Oriental arts; European, American decorative arts. Thorne Miniature Rooms. Chicago Academy of Sciences, Museum of Natural History: Lincoln Park—2001 N. Clark St., Chicago 14, Ill. Open: daily 10-5. Free.

Emphasis on regional natural history. Exhibits of animal and plant life, minerals and fossils of Chicago region. Astronomical exhibits. Junior Academy of Science.

Chicago Historical Society: N. Clark St. at North Ave., Chicago 14, Ill. Open: wkdys. 9:30-4:30, Sun. 12:30-5:30. Free (Sun., Mem. Day, July 4, Lab. Day 25¢ for adults).

Exhibits and period rooms from discovery and exploration of America to present. Special emphasis on history of Chicago. Washington and Lincoln exhibits.

Chicago Natural History Museum (formerly Field Museum): Roosevelt Rd. at Lake Shore Dr., Chicago 5, Ill. Open: wkdys. & Sun.—Nov.-Feb. 9-4; May-Aug. 9-6; Mar., Apr., Sept., Oct. 9-5 (closed Xmas and NY Day). Adm. 25¢. (free Thurs., Sat., Sun.).

Exhibits in anthropology, botany, geology, zoology. Prehistoric skeletons. Dioramas of Stone-Age Europe. Vast Egyptian collection. Model of moon.

Museum of Science and Industry: 57th St. at Lake Michigan, Chicago 37, Ill. Open: fall & winter—wkdys. 9:30-4, Sat., Sun. & hldys. 9:30-6; spring & summer—everyday 9:30-6. Free (small fee to certain exhibits).

"Do it yourself" museum where learning is fun. Operating coal mine, real submarine, giant heart, Paul Bunyan house. Original "Atoms for Peace" Exhibit.

Oriental Institute Museum of the University of Chicago: 1155 E. 58th St., Chicago 37, Ill. Open: Tues. & Weds. 10-12, 1-5, Thurs.-Sun. 10-5 (closed Mon.). Free.

Ancient Near Eastern objects, including 40-ton human-headed winged bull from Khorsabad, 16-ft. statue of Tutankhamen from Egypt, colossal bull's head from Persepolis, statuary, glyptic, gold and ivory ornaments.

Vanderpoel (John H.) Memorial Art Gallery: Longwood Dr. at 96th St., Chicago 43, Ill. Open: wkdys. & Sun. 9-5 (closed hldys.). Free.

Paintings, watercolors, etchings, sculpture contributed by the artists in tribute to Mr. Vanderpoel.

WASHINGTON, D. C.

Corcoran Gallery of Art: 17th St. at New York Ave., N. W., Washington 6, D. C. Open: wkdys. 10-4:30 (closed Mon.; Sat. 9-4:30), Sun. & hldys. 2-5 (closed Xmas, NY Day & July 4). Free.

Specializes in American art, but has notable collection of 17th century Dutch and 19th century French paintings. Persian rugs, Italian majolica, Greek and

Roman antiquities. Barye bronzes. American sculpture. Annual and special exhibitions of U. S. art.

Freer Gallery of Art, Smithsonian Institution: Jefferson Dr. at 12th St., S.W., Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Oriental paintings, sculpture, bronzes, pottery, metalwork, manuscripts. Largest extant Whistler collection.

National Air Museum, Smithsonian Institution: The Mall, 10th and Jefferson Dr., Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Full-sized aircraft exhibited, including Wright brothers' *Kitty Hawk Flyer*, Lindbergh's *Spirit of St. Louis*, Wiley Post's *Winnie Mae*, Bell *Supersonic X-1*.

National Collection of Fine Arts, Smithsonian Institution: Constitution Ave. at 10th St., Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Art collections given by Harriet Lane Johnston, Ralph Cross Johnson, William T. Evans, John Gellatly and others. Room devoted to Albert Pinkham Ryder.

National Gallery of Art, Smithsonian Institution: Constitution Ave. at 6th St., Washington 25, D. C. Open: wkdys. 10-5, Sun. 2-10 (closed Xmas & N Y Day). Free.

Paintings, sculpture, drawings, prints, decorative arts given by Mellon, Kress, Widener, Rosenwald, Dale, the Booths, the Garbisches and others. Index of American Design.

Smithsonian Institution: on the Mall, Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Maintains the following museums and art galleries: Freer Gallery of Art, National Air Museum, National Collection of Fine Arts, National Gallery of Art, U. S. National Museum. See those entries.

United States National Museum, Smithsonian Institution: on the Mall, Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Exhibits in anthropology, zoology, botany, geology, paleontology, engineering, industry, technology, crafts, numismatics, philately, history, etc.

PHILADELPHIA

Academy of Natural Sciences of Philadelphia: 19th and the Parkway, Philadelphia 3, Pa. Open: wkdys. 10-5 (summer 10-4), Sun. 1-5. Adm. 50c (children 25c).

Large habitat groups of animals of North America, Africa, Asia. Hall of Earth History, Audubon Bird Hall. Minerals, gems. Aquarium. Live animal demonstrations.

Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts: 20th St. at Benj. Franklin Pkwy., Philadelphia 3, Pa. Open: wkdys. 12-5 (Sat. 10-5, closed Mon.), Sun. 12-5. Arm. 75¢.

Activities grouped into 7 major categories:

Benj. Franklin Memorial; monthly Journal; lectures; library; medal awards; museum of science and industry, including planetarium; research laboratories.

Pennsylvania Academy of the Fine Arts: Broad and Cherry Sts., Philadelphia 2. Open: wkdys. 10-5 (closed Mon., Good Fri., Mem. Day, July 4, Thnks. Day, Xmas, NY Day), Sun. & hldys. 1-5. Free.

Permanent collections include American art from 18th century to present. Special exhibitions.

Philadelphia Museum of Art: Parkway at 26th St., Philadelphia 30, Pa. Open: wkdys. & Sun. 9-5 (closed all legal hldys.). Free. Paintings: old masters, contemporary French, American, Mexican. Prints, decorative arts, period rooms. Oriental arts. Operates Colonial Chain of Houses in Fairmount Park, Rodin Museum and Samuel S. Fleischer Art Memorial.

MUSEUMS IN OTHER CITIES

(Free unless otherwise noted)

Alabama Museum of Natural History: University of Alabama, Tuscaloosa. Open: wkdys. & Sun. 8-5.

All phases of natural history with emphasis on geology.

Atomic Energy, American Museum of: Oak Ridge, Tenn. Open: wkdys. 9:30-5; Sun. 12:30-6:30.

Demonstrations, exhibits, motion pictures, models, etc. relating to atomic energy. Traveling exhibits available free to qualified exhibitors in U. S.*

Baseball Hall of Fame and Museum, Natl.: Main St., Cooperstown, N. Y.

Relics, pictures, documents of baseball history. Bronze plaques of game's immortals. See also Hall of Fame in index.

Berkshire Museum: Pittsfield, Mass. Open: wkdys. 10-5 (closed Mon.), Sun. 2-5.

Painting, sculpture, decorative arts—ancient to modern; galleries of birds, animals, biology. Peary arctic sledge. Original "One Hoss Shay." First Wm. Stanley transformer. Little Cinema theater.

(Boston) Museum of Fine Arts: 465-479 Huntington Ave., Boston 15, Mass. Open: wkdys. 10-5 (Tues., Oct.-May, 10-10; closed Mon. & hldys.), Sun. 1:30-5:30.

European and American paintings. Early American silver, furniture, interiors. Print collection largest in U. S. Noted Asiatic, Egyptian, Classical collections.

Buffalo Fine Arts Academy—Albright Art Gallery: 1285 Elmwood Ave., Buffalo 22, N. Y. Open: Sun. & Mon. 2-6, rest of wk. 10-5 (closed Thnks. Day, Xmas, NY Day).

Comprehensive collection of contemporary painting. English 18th and French 19th-century works. Sculpture 3000 B.C. to present.

* Send inquiries to Museum Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tenn.

Buffalo Museum of Science: Humboldt Park, Buffalo, N. Y. Open: wkdys. 10-5 (Sat. 9-5), Sun. & hldys. 1:30-5:30.

Extensive natural history collections. African and South Sea exhibits. Chinese pottery. Babylonian seals. Living museum.

California Academy of Sciences: Golden Gate Park, San Francisco 18. Open: wkdys. & Sun. 10-5.

North American and African habitat groups. Astronomical exhibits, clocks, watches, lamps, minerals, plants. Steinhart Aquarium. Morrison Planetarium. Continuous research program.

California Palace of the Legion of Honor: Lincoln Park, San Francisco. Open: daily 10-5 (hldys. 1-5).

European and American paintings. Rodin sculpture and drawings. Furniture, bronzes, porcelain. Egyptian art.

Carnegie Institute: 4400 Forbes Ave., Pittsburgh 13, Pa. Open: wkdys. 10-5 (Tues. during winter mos. 10-10), Sun. 2-5.

Department of Fine Arts: European and American paintings, ancient sculpture. Museum: exhibits in history and natural history. Music Hall. Carnegie Library.

Cincinnati Art Museum: Eden Park, Cincinnati 6, Ohio. Open: wkdys. 10-5 (Tues. Oct.-Apr., 10-10), Sun. & hldys. 2-5 (closed Thns. Day & Xmas).

Paintings, prints, decorative arts, period rooms, Near & Far Eastern potteries and bronzes. Egyptian, Greco-Roman, Medieval, Oriental sculptures. Ancient musical instruments.

Cleveland Museum of Art: Wade Park, Cleveland 6, Ohio. Open: wkdys. 9-5 (Wed. 9 A.M.-10 P.M., Fri. evenings during lecture season 7-10, closed Mon., July 4, Thns. Day, Xmas), Sun. 1-6.

Classical and modern art of all nations and ages. Paintings, sculpture, graphic arts, furniture, silver, prints, arms and armor, textiles, Byzantine, Medieval, Early American collections.

Cleveland Museum of Natural History: 10600 East Blvd., Cleveland 6, Ohio. Open: wkdys. 9-5 (closed Mon.), Sun. 1-5:30.

Natural history exhibits from formation of our solar system to present—animals, plant life, geology. Mueller Planetarium, Hall of Nature.

Colonial Williamsburg: Williamsburg, Va. Open: daily. Adm. \$3 for block ticket; students and servicemen \$1. Children under 7 free; 7-11, 50¢.

Restoration of 18th-century capital of Virginia colony; 500 reconstructed or restored buildings, 83 ac. of gardens; three 18th-century restaurants.

Colorado Springs Fine Arts Center: 30 W. Dale St., Colorado Springs, Colo. Open: wkdys. 9-5 (closed Mon. from Sept. thru May), Sun. 1:30-5.

Contemporary paintings. Collection of Spanish-American New Mexican Santos. Southwest Indian arts and crafts.

Corning Glass Center: Corning, N. Y. Open: wkdys. & Sun. 9:30-5 (closed Mon.). Museum has most comprehensive collection of glass in world; Hall of Science and Industry shows many uses of glass; factory has comfortable gallery where visitors may watch glass being made.

Currier Gallery of Art: 192 Orange St., Manchester, N. H. Open: wkdys. 10-5, Sun. 2-5.

European and American paintings. American decorative arts of 18th century, including fine New England furniture, silver and early glass.

Davenport Public Museum: Brady St. at 7th, Davenport, Iowa. Open: wkdys. 9-5 (closed Mon.), Sun., hldys. 2-5.

Science, history, applied art exhibits, including anthropology, ethnology, Oriental and Mediterranean culture.

Denver Art Museum: 5 separate branches. Administration offices: Schleier Gallery, 1343 Acoma St., Denver 4, Colo. Open wkdys. 9-5 (closed Mon.), Sun. 2-5.

Ancient Mediterranean, European, American paintings and decorative arts. Oriental, South Sea, African, Latin American, American Indian arts and crafts.

Denver Museum of Natural History: City Park, Denver 6. Open: wkdys. 9-4:30, Sun. 12-5.

Natural history of North and South America, Australia and South Pacific. Habitat groups of mammals and birds. Minerals, fossil mammal and reptile skeletons, New World archaeology.

Detroit Historical Museum: 5401 Woodward, Detroit 2. Open: wkdys. 1-10 (Sat. 9-6, closed Mon.), Sun. 1-10.

Industrial, social history, marine and military exhibits. Streets of Detroit 1840-50, 1870-80. Large model railroad.

Detroit Institute of Arts: 5200 Woodward Ave., Detroit, Mich. Open: Sept.-June—wkdys. 1-10 (Sat. 9-6, closed Mon.), Sun. 9-6; July & Aug.—wkdys. & Sun. 9-6 (closed Mon.); closed all hldys.

Survey of history as expressed in arts. Paintings, sculpture, furniture, glass, gold work, ivory, graphic arts, textiles, armor. Murals by Diego Rivera. Movies.

Farmers' Museum: Lake Rd., Route 80, Cooperstown, N. Y. Open: May 1-Nov. 1, 9-6 daily. Re-created Village Crossroads, Nov. 1-Apr. 30, 9-5 daily exc. Mon. & Sun. A.M. Adm. \$1 May 1-Nov. 1; 50¢ Nov. 1-Apr. 30 (children 15¢).

Early farm and handicraft tools. School house, country store, smithy, print shop, doctor's and lawyer's offices, pharmacy, tavern, farm unit. Cardiff Giant. Operated by N. Y. State Historical Assn.

Fenimore House: Lake Rd., Route 80,

Cooperstown, N. Y. Open: May 1-June 30—daily 9-6; July 1-Aug. 31—daily 9-9; Sept. 1-Oct. 31—daily 9-6; Nov. 1-Apr. 30—daily 9-5. Adm. 75¢ (children 15¢).

American portraits, genre paintings. Browere life masks of Founding Fathers. Hamilton-Burr Room. James Fenimore Cooper memorabilia. Folk art. Library. Operated by N. Y. State Historical Assn.

Florida State Museum: Gainesville, Fla. Open: wkdays. 9:30-5, Sun. & hldys. 1-5.

Archaeology, ethnology, ornithology and other phases of natural history. Also history and industry.

Gardner (Isabella Stewart) Museum: 280 The Fenway, Boston 15, Mass. Open: Tues., Thurs., Sat. 10-4, Sun. 2-5, first Thurs. of each mo., 10 A.M.-10 P.M. (closed other days, natl. hldys., and during Aug.). Guided tours on closed days, 11 A.M. and 2 P.M.

Renaissance art in building of Venetian palace style. Painting, sculpture, tapestries, furniture.

Heard Museum: 22 E. Monte Vista Rd., Phoenix, Ariz. Open (Nov. 1-May 1): wkdays. 10-5 (closed Mon.), Sun. 1-5.

Prehistoric and historic pottery, blankets, beadwork, carvings, weapons, etc. from various parts of world.

Herron (John) Art Museum: 110 E. 16th St., Indianapolis, Ind. Open: wkdays. 9-5 (closed Mon. & hldys.), Sun. 1-6.

European paintings from Renaissance to present. American paintings of 19th and 20th centuries. Egyptian, Greek, Asiatic sculpture and ceramics, Chinese bronzes, ceramics, jades.

Huntington (Henry E.) Library and Art Gallery: San Marino 9, Calif. Open: wkdays. & Sun. 1-4:30 (closed Mon. and during Oct.).

18th century British paintings. Library exhibits of English and American history and literature. Gutenberg Bible. Franklin's autobiography in his handwriting. Botanical garden. Research facilities.

Illinois State Museum: Springfield, Ill. Open: wkdays. 8:30-5, Sun. 2-5.

Natural history and art. Anthropological, archaeological, botanical, geological, zoological collections.

International Folk Art, Museum of (Unit of the Museum of N. Mex.): Off Old Pecos Rd., Santa Fe, N. Mex. Open: Mon.-Sat. 9-12, 1-5, Sun. 2-4 (1-5 summer).

Collection of folk art from 50 countries. One of two such museums in world. (Other is in Sweden.)

The Layton Collection: Memorial Center, Milwaukee, Wis. Open: wkdays. 10-5, Sun. 2-5.

Exhibitions of selections from permanent collections.

Los Angeles County Museum: Exposition Park, Los Angeles 7, Calif. Open: wkdays. & Sun. 10-5 (closed Mon., Thns. Day, Xmas).

American, European, Eastern art. American Indian exhibits. Habitat groups of African and North American animals. California History Hall. La Brea fossils.

Mint Museum of Art: 501 Hempstead Pl., Charlotte, N. C. Open: wkdays. 10-5 (closed Mon.). Sun. 3-5.

American and European paintings and prints. Relics of former U. S. branch mint.

Mound State Monument Archaeological Museum: Moundville, Ala. Open: wkdays & Sun. 8-5. Adm. 50¢ adults, 25¢ children.

Uncovered Indian burials, etc., of Moundville Indians. Operated by Alabama Museum of Natural History.

Mystic Seaport (Marine Historical Association, Inc.): Mystic, Conn. Open: wkdays. & Sun. 9-5 (closed Thns. Day, Xmas.). Adm. \$1.50 (children 50¢).

Reconstructed seaport of Age of Sail. Typical waterfront street. *Charles W. Morgan*, last of wooden whaleships.

Navajo Ceremonial Art, Museum of: Camino Lejo, near old Pecos Rd., Santa Fe, N. Mex. Open: wkdays. 9-12, 1-4:30 (closed Mon.), Sun. 3-5. Adm. 25¢ (free Sun.).

Sand paintings, ceremonial objects, baskets, blankets, silver. Music records of chants. Comparative material from Asia and elsewhere. Library.

Nelson (William Rockhill) Gallery of Art and Atkins Museum of Fine Arts: 4525 Oak, Kansas City 11, Mo. Open: Tues.-Sat. 10-5, Sun. 2-6 (closed Mon., NY Day, July 4, Thns. Day, Xmas). Adm. 25¢ (children 10¢) (free Sat. & Sun.).

European paintings from 13th century to present. Paintings and sculpture from Kress Collection. Extensive Chinese collection. Egyptian, Greek, Roman collections. English pottery. Concerts, movies.

New York State Historical Association: Lake Rd., Route 80, Cooperstown, N. Y. Administers Farmers' Museum and Fenimore House. See those entries.

Newark Museum: 43-49 Washington St., Newark 1, N. J. Open: Oct.-June—wkdays. 12-5:30 (Wed. & Thur. 12-5:30, 7-9:30), Sun. & hldys. 2-6; July-Sept.—wkdays. 12-5, Sun. & hldys. 2-6.

Collections: American painting, sculpture; Tibetan, Chinese, Japanese arts; decorative arts, ancient glass & ceramics; natural science, ethnology, mechanical models. Planetarium. Junior museum.

Ringling (John & Mable) museums: Sarasota, Fla. Museum of Art, Asolo Theater, John Ringling Residence, Museum of the Circus open wkdays. 9-4:30, Sun. 12:30-4:30. Closed Xmas and Labor Day. Adm.: Art Museum, \$1; Residence, \$1; Circus Museum, 50¢; general admission, \$2.

Collection of old masters, especially Rubens. Only 18th-century Italian theater in America. Elaborate furnishings in Residence. Illustrative and historical material in Circus Museum.

Rosiercrucian Egyptian, Oriental Museum and Art Gallery: San Jose, Calif. Open: wkdys. 9-12 & 1-5 (Sat. 1-5), Sun. 12-5.

Egyptian and Oriental antiquities. Mummies, statuary, jewelry, utensils, clothing. Reproductions of Egyptian rock tomb and temple. Art gallery.

(St. Louis) City Art Museum: Forest Park, St. Louis 5, Mo. Open: wkdys. & Sun. 10-5 (Tues. 2:30-9:30, closed Mon.).

Collection covers all fields of fine art: painting, sculpture, graphic art, decorative art, period rooms. Public restaurant.

San Diego, Fine Arts Gallery of: Plaza de Panama, Balboa Park, San Diego, Calif. Open: wkdys. 10-5, Sun. 1-5:30 (closed Mon. & mo. of Sept.).

European, American paintings, 14th century to present, with emphasis on Spanish, Italian, Flemish and Dutch art. Asiatic arts and prints.

San Diego Museum of Man: California Quadrangle, Balboa Park, San Diego, Calif. Open: wkdys. 10-4:45, Sun. 12-4:45.

Exhibits on Egypt; primitive weapons; Choco, North American, San Diego County Indians; Mayan archaeology.

San Diego Society of Natural History—Natural History Museum: San Diego, Calif. Open: wkdys. & Sun. 10-4:30 (closed Xmas, NY Day).

Mammals, birds, fossils, shells, plants, insects, minerals. Emphasis on Southwestern U. S., Sonora and Lower California.

San Francisco Museum of Art: War Memorial Bldg., San Francisco, Calif. Open: Tues.-Fri. 12-10, Sat., Sun., Mon. 1-6.

Contemporary European, American paintings, sculpture, drawings, prints, architecture, photographs, decorative arts, including work by San Francisco artists. 40-50 exhibitions annually.

Southwest Museum, Inc.: Marmion Way at Museum Dr., Highland Pk., Los Angeles 42,

Calif. Open: wkdys. & Sun. 1-5 (closed Mon., & certain hldys.).

American Indian exhibits, ancient and modern. Library, lectures. Casa de Adobe, reproduction of adobe hacienda, located at 4605 N. Figueroa St.; open Wed. & Sun. 2-5 P.M.

Toledo Museum of Art: Monroe at Scottwood, Toledo 2, Ohio. Open: wkdys. 9-5 (Mon. 1-5), Sun. hldys. 1-5 (closed Xmas, NY Day).

Dutch, French, English, American paintings. Old Masters. Prints, manuscripts, sculpture. Ancient, modern glass. Oriental, Egyptian art. Library, concerts. Founded by Edward Drummond Libbey.

Virginia Museum of Fine Arts: Boulevard at Grove Ave., Richmond 20. Open: wkdys. 11-5 (Fri. in winter 2-5, 8-10; closed Mon.), Sun. 2-5. Free Wed., Sat., Sun. (other days 30¢).

European, American, Oriental art; French and American paintings. European tapestries; imperial Russian jewels. Museum theater with annual season of 5 plays.

Wadsworth Atheneum: 25 Atheneum Sq., N., Hartford 3, Conn. Open: wkdys. 10-5 (Sat. 9-5, closed Mon., Gd. Fri., July 4, Labor Day, Thnks. Day, Xmas, NY Day), Sun. 1:30-5:30.

European and American paintings and drawings from 1400 to present. Bronzes, porcelain, silver. American period rooms and furniture. Library, concerts, movies.

Walters Art Gallery: Charles and Centre Sts., Baltimore 1, Md. Open: wkdys. 11-5 (July-Aug. 11-4), Sun. & hldys. 2-5 (closed NY Day, July 4, Thnks. Day, Xmas Eve, Xmas).

Art from ancient empires to 19th century Europe. Important collections of Etruscan art and medieval illuminated books.

Worcester Art Museum: 55 Salisbury St., Worcester 8, Mass. Open: wkdys. 10-5 (Tues. in Nov.-Apr. 10-10), Sun. 2-5, hldys. 2-5 (closed July 4, Thnks. Day, Xmas).

Art from Egyptian to modern times, including Far East. Emphasis on painting and sculpture. Classes, lectures, concerts, films. Professional art school.

The Great Seal of the United States

On July 4, 1776, the Continental Congress appointed a committee consisting of Benjamin Franklin, John Adams and Thomas Jefferson "to bring in a device for a seal of the United States of America." After many delays, a verbal description of a design by William Barton was finally approved by Congress on June 20, 1782. The seal shows an American bald eagle with a ribbon in its mouth bearing the

device *E pluribus unum* (One out of many). In its talons are the arrows of war and an olive branch of peace.

"In God We Trust"

"In God We Trust" first appeared on U.S. coins after April 22, 1864, when Congress passed an act authorizing the coinage of a 2-cent piece bearing this motto. Thereafter, Congress extended its use to other coins. On July 30, 1956, it became the national motto.

THE UNITED STATES ARMED SERVICES

U. S. MILITARY ACADEMY

Source: U. S. Military Academy.

Established in 1802 by an Act of Congress, the U. S. Military Academy is located on the west bank of the Hudson River some 50 miles north of New York City. Admission may be gained only by appointment to one of the 2,512 cadetships authorized by law. These cadetships are allocated among the following sources of nomination:

Noncompetitive:

Representatives (4 each)	1,748
Senators (4 each)	400
Other:	
Vice Presidential	3
District of Columbia	6
Canal Zone Government	2
Puerto Rico	4

Competitive:

Army and Air Force:	
Regular components	90
Reserve components	90
Presidential	89
Sons of deceased veterans	40
Honor military & honor naval schools	40
Total	2,512

Graduation of the senior class normally leaves about 750 of these cadetships vacant and hence available to new candidates each year. Candidates may be nominated for these vacancies during the year preceding the admission date—the first Tuesday in July.

Candidates must be citizens of the U. S., be of good moral character, have never been married, be between the ages of 17 and 22, have a secondary-school education or its equivalent, and be able to meet the mental, medical, and physical aptitude requirements. A candidate's mental qualification for admission is determined by his performance on prescribed tests of the College Entrance Examination Board. The College Board tests which have been adopted by the Military Academy are—The Scholastic Aptitude Test and Achievement Tests in English Composition and Mathematics. The particular College Board tests which a candidate must take to qualify for entrance to the Military Academy depend upon whether the candidate's nomination is competitive or non-competitive, and whether the applicant has completed satisfactorily at least one semester of study at college. Entrance requirements and procedures for appointment are described in the U. S. Military Academy Catalogue, available without charge from The Registrar, U. S. Military Academy, West Point, N. Y.

Cadets receive their entire education at Government expense and are paid \$111.15 per month. From this sum, they pay for their uniforms, textbooks, etc. Upon successful completion of the 4-year course, the graduate receives the degree of Bachelor of Science and is commissioned a second lieutenant in the Regular Army.

U. S. NAVAL ACADEMY

Source: U. S. Naval Academy.

On October 10, 1845, the Naval School was established at Fort Severn, Annapolis, Maryland. Five years later it was renamed the United States Naval Academy, and the following year a regular four-year course was adopted. In June, 1959, the academic departments were grouped under three directors as follows: Director of Naval Science (Command—Weapons—Naval Hygiene); Director of Science and Engineering (Mathematics—Science—Engineering); and Director of Social Sciences and Humanities (English, History, and Government—Foreign Languages). The Executive Department and Physical Education came under the direction of the Commandant of Midshipmen.

Candidates are selected as follows:

- 5 from the District of Columbia.
- 40 sons of men and women killed in action or who have died, or may hereafter die of wounds or injuries, or disease contracted, in active service in World Wars I and II and other periods.
- 75 annually from among sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard.
- 160 enlisted Navy and Marine personnel selected annually by competitive examination.
- 160 annually chosen by the Secretary of the Navy from the Naval and Marine Corps Reserves.
- 5 Puerto Ricans chosen by the Resident Commissioner of Puerto Rico.
- 1 on the recommendation of the Governor of Puerto Rico.
- 4 Filipinos designated by the President of the United States.
- 1 from the Canal Zone.
- 20 annually from schools designated by the Army and Navy as honor schools and from NROTC schools.
- 20 from the American republics and the Dominion of Canada.
- Unlimited: Sons of persons who have been or shall hereafter be awarded the Medal of Honor.

Each Senator, Representative, delegate to Congress, and the Vice President may have not more than 5 Midshipmen at the Naval Academy. The Board of Commissioners selects the 5 from the District of Columbia. The President selects the 40 sons of de-

ceased veterans of World Wars and the 75 sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard. The President also appoints the sons of holders of the Medal of Honor.

Subject to the existence of vacancies and the availability of accommodations, the Secretary of the Navy may nominate for appointment a limited number of additional candidates. These must be recommended by the Academic Board from among the fully qualified, regularly nominated alternate and competitive candidates of the same year who were unable to enter because of the appointment of men preceding them in nomination.

Candidates for admission must be between 17 and 22 years of age on July 1 of their entering year. They may qualify by submitting acceptable scores on College Entrance Examination Board aptitude and achievement tests, or by presenting acceptable high school and college certificates. Details of the entrance requirements, scholastic and physical, may be obtained from the Naval Academy or from the Navy Department, Washington, 25, D.C. Candidates must also meet physical requirements and be unmarried.

Midshipmen are paid \$111.15 per month. Graduates of the Academy are granted Bachelor of Science degrees and are commissioned as ensigns in the Navy or second lieutenants in the Marine Corps.

U. S. COAST GUARD ACADEMY

Source: U. S. Coast Guard Academy.

The cadet system of the Coast Guard was established by law on July 31, 1876, when the "School of Instruction" for the Revenue Cutter Service, predecessor to the Coast Guard, was authorized.

The *J. C. Dobbin*, a converted schooner, served as the first schoolship, and was succeeded in 1878 by the bark *Chase*, a ship built for cadet training. First winter quarters were in a sail loft at New Bedford, Mass. The school was moved in 1900 to a two-story frame school at Curtis Bay, Md., to provide a more technical education; and in 1910 to Fort Trumbull, New London, Conn. In 1932 the Academy moved to its present site in the latter city.

The 4-year college-level curriculum leads to a Bachelor of Science degree and to a commission of ensign in the U. S. Coast Guard.

Cadets receive appointment to the Academy through a nation-wide competitive examination, held annually in February. Candidates must be between 17 and 22 years of age, physically sound, unmarried and at least 5' 4" tall. They must agree to remain unmarried until graduation and to serve at least 4 years on active duty. Cadets receive \$111.15 per month to cover their uniform and incidental expenses, and are

furnished their rations and quarters. Applications for appointment may be made to the Commandant (PTP), U. S. Coast Guard, Washington 25, D. C.

U. S. MERCHANT MARINE ACADEMY

Source: U. S. Merchant Marine Academy.

The U. S. Merchant Marine Cadet Corps was established Mar. 15, 1938, and its Academy is located on the south shore of Long Island Sound at Kings Point, N. Y.

The Academy has a complement of 1,000 cadets representing every U. S. state, D. C., the Canal Zone, Puerto Rico, Guam, American Samoa and the Virgin Islands. In addition, it is authorized to admit for the full period of training not more than 12 candidates from Central and South American republics.

Competitive examinations are held annually among candidates nominated by Senators and members of the House of Representatives. Appointments to the Academy are governed by a state and territory quota system based on population. A candidate must be an unmarried citizen not less than 17 and not yet 22 years of age by July 1 of the year in which admission is sought. He must have 15 high-school credits, including 3 units in mathematics (from algebra, geometry and/or trigonometry), 1 unit in science (physics or chemistry) and 3 in English.

The course is 4 years, consisting of 1 year as Fourth Classman at the Academy, 1 year as Third Classman aboard a merchant ship, and 2 years as Second and First Classman at the Academy. Study includes marine engineering, navigation, electricity, ship construction, naval science and tactics, economics, business, languages, history, and other subjects.

On completion of their courses, cadets are examined for their original Merchant Marine license as deck or engineer officers in any ship in the U. S. Merchant Marine. They also receive Bachelor of Science degrees and commissions as officers in the U. S. Naval Reserve.

U. S. AIR FORCE ACADEMY

Source: U. S. Air Force Academy.

The bill establishing the Air Force Academy was signed by President Eisenhower on Apr. 1, 1954. The first class of 306 cadets was sworn in on July 11, 1955, at Lowry Air Force Base, Denver, Colo., the Academy's temporary location. The Cadet Wing moved into the Academy's permanent home north of Colorado Springs in Aug. 1958.

Eventually the Academy will have a complement of over 2,500. Qualified sons of Medal of Honor winners will be admitted without regard to total vacancies, provided they pass minimum requirements.

Candidates must be citizens of the U. S., be at least 17 but less than 22 on July 1 of

the year for which they seek admission, never have been married, be at least 5' 4" and not more than 6' 6" tall, and be able to meet the mental and physical requirements. A candidate is required to take the following examinations and tests: (1) the Air Force Academy Medical Examination; (2) the Air-Force Officer Qualifying Test; (3) the College Entrance Examination Board Tests; and (4) a physical aptitude examination.

Cadets receive their entire education at Government expense and, in addition, are paid \$111.15 per month. From this sum, they pay for their uniforms, textbooks, etc. Upon completion of the 4-year course, leading to a bachelor's degree, a cadet who meets the physical qualifications is appointed a second lieutenant in the regular U. S. Air Force as a navigator. Many go on to full-scale pilot training.

History of the Armed Services

Source: U. S. Department of Defense.

U. S. ARMY

When Gen. Washington, on July 3, 1775, took command of the colonial militia (about 8,000 men) besieging Boston, the event marked the union of the forces of the 13 separate colonies under one head, and the U. S. Army was born. In Jan. 1776, the Continental Congress decided that these troops should be separate in organization from those of local communities and established them as the U. S. Regular Army. When these forces were disbanded after the war, only some 80 officers and men were retained to guard U. S. Army stores. From this humble beginning, in the ensuing years, the strength of the U. S. Army rose or fell according to national and international conditions.

U. S. NAVY

In Sept. and Oct. 1775, Gen. Washington maintained 5 schooners and a sloop with officers and men from his army for the purpose of preying on inbound English supply vessels and thereby caused the birth of the U. S. Navy. In Dec. 1775, the Continental Congress expanded this by providing for construction of naval craft and the appointment of a marine committee (one member from each colony) which continued until 1794 when further ships and manpower were provided for by act of Congress. Upon completion of these ships in 1798, a Navy Department was established as the controlling agency, and the secretary given Cabinet rank.

U. S. AIR FORCE

Until creation of the National Military Establishment in September 1947, which united the services under one department, military aviation was a part of the U. S. Army. In the Army, aeronautical operations came under the Signal Corps from 1907 to 1918, when the U. S. Air Service was established. In 1926, the U. S. Air Corps came into being and remained until 1942, when the Army Air Forces succeeded it as the Army's air arm.

In the Navy, ship-based fighters and bombers are attached to the several fleets and are under the orders of the fleet commanders. Marine Corps aviation comes under control of the Navy.

In 1947, the U. S. Air Force was established as an independent military service under the National Military Establishment. At that time, the name U. S. Air Corps and the names of the services within the Army Air Forces were abolished.

U. S. COAST GUARD

Our country's oldest continuous seagoing service, the U. S. Coast Guard traces its history back to 1790 when the First Congress authorized the construction of ten vessels for the collection of revenue. Known first as the Revenue Marine, and later as the Revenue Cutter Service, the Coast Guard received its present name in 1915 under an act of Congress combining the Revenue Cutter Service with the Life-Saving Service. In 1939, the Lighthouse Service of the Department of Commerce was also consolidated with this unit. The Bureau of Marine Inspection and Navigation was transferred temporarily to the Coast Guard in 1942, permanently in 1946. Through its antecedents, the Coast Guard is one of the oldest organizations under the Federal government and, until the Navy Department was established in 1798, served as the only U. S. armed force afloat. In time of peace it operates under the Treasury Department, serving as the Nation's primary agency for promoting marine safety and enforcing Federal maritime laws. In time of war, or on direction of the President, it is attached to the Navy Department.

U. S. MARINE CORPS

Founded in 1775 and observing its official birthday on Nov. 10, the U. S. Marine Corps was developed to be able to serve to advantage on land or sea.

It has been used successfully in every U. S. war beginning with the Revolution, when it consisted of 2 battalions. It reached its high in achievement in World War II and in the Korean conflict when over 75% of its officers and men saw combat.

Selective Service Classifications

- I-A:** Available for military service.
- I-A-0:** Conscientious objector available for noncombatant military service only.
- I-C:** Member of Armed Forces, Coast and Geodetic Survey or Public Health Service.
- I-D:** Member of reserve component or student taking military training.
- I-O:** Conscientious objector available for civilian work contributing to maintenance of national health, safety or interest.
- I-S:** Student deferred by statute.
- I-W:** Conscientious objector performing civilian work contributing to maintenance of national health, safety or interest.
- II-A:** Registrant deferred because of civilian occupation (except agriculture and activity in study).
- II-C:** Registrant deferred because of agricultural occupation.
- II-S:** Registrant deferred because of activity in study.
- III-A:** Registrant with child or children; and registrant deferred by reason of extreme hardship to dependents.
- IV-A:** Registrant who has completed service; sole surviving son.
- IV-B:** Officials deferred by law.
- IV-C:** Aliens.
- IV-D:** Minister of a religion or a divinity student.
- IV-F:** Physically, mentally or morally unfit.
- V-A:** Registrant over age of liability for military service.

Highest Ranking Officers in the Armed Forces

ARMY

Generals of the Army: George C. Marshall; Douglas MacArthur; Omar N. Bradley.

Generals: Lyman L. Lemnitzer; Isaac D. White; George H. Decker; Bruce C. Clarke; Clyde D. Eddleman.

AIR FORCE

Generals: Nathan F. Twining; Thomas D. White; Lauris Norstad; Curtis E. LeMay; Otto P. Weyland; Earle E. Partridge; Laurence S. Kuter; Leon W. Johnson; Thomas S. Power; Frank F. Everest; Samuel Anderson.

NAVY

Fleet Admiral: Chester W. Nimitz.

Admirals: Arleigh A. Burke; Jerauld Wright; Walter F. Boone; Harry D. Felt; Herbert G. Hopwood; James S. Russell; Charles R. Brown; Robert L. Dennison.

MARINE CORPS

General: Randolph McC. Pate.

Lieutenant Generals: Vernon E. Megee; Edwin A. Pollock; Merrill B. Twining; Verne J. McCaul; Robert E. Hogaboom.

COAST GUARD

Vice Admiral: Alfred C. Richmond, Commandant.

Rear Admiral: James A. Hirschfield, Assistant Commandant.

U. S. Military Actions Other Than Declared Wars

HAWAII (1893): U. S. Marines, ordered to land by U. S. Minister Stevens, aided the revolutionary Committee of Safety in overthrowing the native government. Stevens then proclaimed Hawaii a U. S. protectorate. Annexation, resisted by the Democratic regime in Washington, was not formally accomplished until 1898.

CHINA (1900): Boxers (a group of Chinese revolutionists) occupied Peking and laid siege to foreign legations. U. S. troops joined an international expedition which relieved the city.

PANAMÁ (1903): After Colombia had rejected a proposed agreement for relinquishing sovereignty over the Panama Canal Zone, revolution broke out, aided by promoters of the Panama Canal Co. Two U. S. warships were standing by to protect American privileges. The U. S. recognized the Republic of Panamá on Nov. 6.

DOMINICAN REPUBLIC (1904): When the Dominican Republic failed to meet debts owed to the U. S. and foreign creditors, Theodore Roosevelt declared the U. S. inten-

tion of exercising "international police power" in the Western Hemisphere whenever necessary. The U. S. accordingly administered customs and managed debt payments of the Dominican Republic from 1905-07.

NICARAGUA (1911): The possibility of foreign control over Nicaragua's canal route led to U. S. intervention and agreement. The U. S. landed Marines in Nicaragua (Aug. 14, 1912) to protect American interests there. A small detachment remained until 1933.

MEXICO (1914): Mexican Dictator Huerta, opposed by President Wilson, had the support of European governments. An incident involving unarmed U. S. sailors in Tampico led to the landing of U. S. forces on Mexican soil. Vera Cruz was bombarded by the Navy to prevent the landing of munitions from a German vessel. At the point of war, both powers agreed to mediation by Argentina, Brazil and Chile. Huerta abdicated, and Carranza succeeded to the presidency.

HAITI (1915): U. S. Marines imposed a military occupation. Haiti signed a treaty making it a virtual protectorate of the U. S. until troops were withdrawn in 1934.

MEXICO (1916): Raids by Pancho Villa cost American lives on both sides of the border. President Carranza consented to a punitive expedition lead by Gen. Pershing, but antagonism grew in Mexico. Wilson

withdrew the U. S. force when war with Germany became imminent.

DOMINICAN REPUBLIC (1916): Renewed intervention in the Dominican Republic with internal administration by U. S. naval officers lasted until 1924.

Insignia and Ranks of the Armed Forces

Army, Air Force and Marines		Navy and Coast Guard		
Insignia	Rank	Insignia	Rank	Stripes ¹
Five silver stars	General of the Army, AF	Five silver stars	Fleet Admiral	1—4—0
Four silver stars	General	Four silver stars	Admiral	1—3—0
Three silver stars	Lieutenant General	Three silver stars	Vice Admiral	1—2—0
Two silver stars	Major General	Two silver stars	Rear Admiral	1—1—0
One silver star	Brigadier General	One silver star	Commodore	1—0—0 ²
Silver eagle	Colonel	Silver eagle	Captain	0—4—0
Silver oak leaf	Lieutenant Colonel	Silver oak leaf	Commander	0—3—0
Gold oak leaf	Major	Gold oak leaf	Lt. Commander	0—2—1
Two silver bars	Captain	Two silver bars	Lieutenant	0—2—0
One silver bar	First Lieutenant	One silver bar	Lieutenant (jg)	0—1—1
One gold bar	Second Lieutenant	One gold bar	Ensign	0—1—0
Silver bar with 3 enamel bands ³	Chief Warrant Officer (W-4)	Silver bar with 3 enamel bands ³	Chief Warrant Officer (W-4)	0—1—0 ⁴
Silver bar with 2 enamel bands ³	Chief Warrant Officer (W-3)	Silver bar with 2 enamel bands ³	Chief Warrant Officer (W-3)	0—1—0 ⁵
Gold bar with 3 enamel bands ³	Chief Warrant Officer (W-2)	Gold bar with 3 enamel bands ³	Chief Warrant Officer (W-2)	0—1—0 ⁶
Gold bar with 2 enamel bands ³	Warrant Officer (W-1)	Gold bar with 2 enamel bands ³	Warrant Officer (W-1)	0—0—1 ⁶

¹ Of gold embroidery; first figure is number of 2-in. stripes, second is number of 1 1/2-in. stripes, third is number of 1/4-in. stripes. ² Wartime only. ³ Bar is 3/8 in. by 1 1/8 in. for Army, Air Force and Navy; 1/4 in. by 3/4 in. for Marine Corps. Enamel bands are brown for Army, sky blue for Air Force, scarlet for Marines and blue for Navy.

⁴ One break. ⁵ Two breaks. ⁶ Three breaks.

Pay Grades of Enlisted Personnel

Source: Department of Defense, Public Information Office.

Army ranks ¹	Air Force ranks	Marine ranks	Navy ranks	Pay grades
Sergeant Major	Chief Master Sergeant	Sergeant Major	Mast. Ch. Petty Officer	E-9
1st Sgt. and Master Sgt.	Sr. Master Sergeant	First Sergeant	Sr. Ch. Petty Officer	E-8
Sergeant 1st Class	Master Sergeant	Actg. Master Sergeant	Chief Petty Officer	E-7
Staff Sergeant	Technical Sergeant	Actg. Gunnery Sergeant	Petty Officer 1st Class	E-6
Sergeant	Staff Sergeant	Actg. Staff Sergeant	Petty Officer 2nd Class	E-5
Corporal	Airman 1st Class	Actg. Sergeant	Petty Officer 3rd Class	E-4
Private 1st Class	Airman 2nd Class	Actg. Corporal	Seaman	E-3
Private	Airman 3rd Class	Private 1st Class Marine	Seaman Apprentice	E-2
Private	Airman	Private	Seaman Recruit	E-1

¹ Army specialists are in the following pay grades: Specialist Nine (E-9); Specialist Eight (E-8); Specialist Seven (E-7); Specialist Six (E-6); Specialist Five (E-5); Specialist Four (E-4).

Monthly Salaries of Enlisted Personnel by Years of Service

E-9*—10–12 yrs service: \$380; 12–14 yrs: \$390; 14–16 yrs: \$400; 16–18 yrs: \$410; 18–20 yrs: \$420; 20–22 yrs: \$430; over 22 yrs: \$440.	10–12 yrs: \$245; 12–14 yrs: \$255; 14–16 yrs: \$265; 16–18 yrs: \$275; 18–20 yrs: \$280; over 18 yrs: \$290.
E-8*—8–10 yrs service: \$310; 10–12 yrs: \$320; 12–14 yrs: \$330; 14–16 yrs: \$340; 16–18 yrs: \$350; 18–20 yrs: \$360; 20–22 yrs: \$370; over 22 yrs: \$380.	E-5—Under 2 yrs service: \$145.24; 2–4 yrs: \$180; 4–6 yrs: \$205; 6–8 yrs: \$210; 8–10 yrs: \$220; over 10 yrs: \$240.
E-7—Under 2 yrs service: \$206.39; 2–4 yrs: \$236; 4–6 yrs: \$250; 6–8 yrs: \$260; 8–10 yrs: \$270; 10–12 yrs: \$285; 12–14 yrs: \$300; 14–16 yrs: \$310; 16–18 yrs: \$325; 18–20 yrs: \$340; over 20 yrs: \$350.	E-4—Under 2 yrs service: \$122.30; 2–3 yrs: \$150; 3–4 yrs: \$160; 4–6 yrs: \$170; 6–8 yrs: \$180; over 8 yrs: \$190.
E-6—Under 2 yrs service: \$175.81; 2–4 yrs: \$200; 4–6 yrs: \$225; 6–8 yrs: \$235; 8–10	E-3—Under 2 yrs service: \$99.37; 2–4 yrs: \$124; over 4 yrs: \$141.
	E-2—Under 2 yrs service: \$85.80; over 2 yrs: \$108.
	E-1—Under 4 mos service: \$78; 4 mos–2 yrs: \$83.20; over 2 yrs: \$105.

* An enlisted member may not be placed in pay grade E-8 or E-9 until he has completed at least 8 years or 10 years, respectively, of cumulative service creditable in the computation of his basic pay.

MONTHLY ALLOWANCE FOR QUARTERS: No dependents, \$51.30 for all pay grades; 1 dependent, \$51.30 for pay grades E-1 through E-3, \$77.10 for pay grades E-4 through E-9; 2 dependents, \$77.10 for all pay grades; over 2 dependents, \$96.90 for all pay grades.

Pay Grades of Commissioned Officers and Warrant Officers

Source: Department of Defense, Public Information Office.

Rank			Monthly allowances for quarters		
Army, Air Force and Marine Corps	Navy, Coast Guard and Coast and Geodetic Survey	Public Health Service	Pay grade	With dependents	With no dependents
General	Admiral	.....	O-10	\$171.00	\$136.80
Lieutenant General	Vice Admiral	.....	O-9	171.00	136.80
Major General	Rear Admiral (upper half)	Surgeon General; Deputy Surgeon General; Assist- ant Surgeon General hav- ing rank of Major General	O-8	171.00	136.80
Brigadier General	Rear Admiral (lower half) and Commodore	Assistant Surgeon General having rank of Brigadier General	O-7	171.00	136.80
Colonel	Captain	Director Grade	O-6	136.80	119.70
Lieutenant Colonel	Commander	Senior Grade	O-5	136.80	102.60
Major	Lieutenant Commander	Full Grade	O-4	119.70	94.20
Captain	Lieutenant	Senior Assistant Grade	O-3	102.60	85.50
First Lieutenant	Lieutenant (junior grade)	Assistant Grade	O-2	94.20	77.10
Second Lieutenant	Ensign	Junior Assistant Grade	O-1	85.40	68.40
Chief Warrant Officer	Chief Warrant Officer	.....	W-4	119.70	94.20
Chief Warrant Officer	Chief Warrant Officer	.....	W-3	102.60	85.50
Chief Warrant Officer	Chief Warrant Officer	.....	W-2	94.20	77.10
Warrant Officer	Warrant Officer	.....	W-1	85.50	68.40

Monthly Salaries of Officers by Years of Service

O-10*	Under 2 yrs service: \$1,200; 2-8 yrs: \$1,250; 8-12 yrs: \$1,300; 12-16 yrs: \$1,400; 16-20 yrs: \$1,500; 20-26 yrs: \$1,600; over 26 yrs: \$1,700.	O-3†	4-6 yrs service: \$415; 6-8 yrs: \$440; 8-10 yrs: \$460; 10-12 yrs: \$480; 12-14 yrs: \$510; over 14 yrs: \$535.
O-9	Under 2 yrs service: \$1,063.30; 2-3 yrs: \$1,100; 3-8 yrs: \$1,122; 8-12 yrs: \$1,150; 12-16 yrs: \$1,200; 16-20 yrs: \$1,300; 20-26 yrs: \$1,400; over 26 yrs: \$1,500.	O-2†	Under 2 yrs service: \$259.36; 2-3 yrs: \$291; 3-4 yrs: \$360; 4-6 yrs: \$370; over 6 yrs: \$380.
O-8	Under 2 yrs service: \$963.30; 2-3 yrs: \$1,000; 3-8 yrs: \$1,022; 8-12 yrs: \$1,100; 12-16 yrs: \$1,150; 16-18 yrs: \$1,200; 18-20 yrs: \$1,250; 20-22 yrs: \$1,300; over 22 yrs: \$1,350.	O-2†	4-6 yrs service: \$370; 6-8 yrs: \$380; 8-10 yrs: \$395; 10-12 yrs: \$415; 12-14 yrs: \$435; over 14 yrs: \$450.
O-7	Under 2 yrs service: \$800.28; 2-6 yrs: \$860; 6-10 yrs: \$900; 10-14 yrs: \$950; 14-16 yrs: \$1,000; 16-18 yrs: \$1,100; over 18 yrs: \$1,175.	O-1†	Under 2 yrs service: \$222.30; 2-3 yrs: \$251; over 3 yrs: \$314.
O-6	Under 2 yrs service: \$592.80; 2-3 yrs: \$628; 3-14 yrs: \$670; 14-16 yrs: \$690; 16-18 yrs: \$800; 18-20 yrs: \$840; 20-22 yrs: \$860; 22-26 yrs: \$910; over 26 yrs: \$985.	O-1†	4-6 yrs service: \$314; 6-8 yrs: \$335; 8-10 yrs: \$350; 10-12 yrs: \$365; 12-14 yrs: \$380; over 14 yrs: \$400.
O-5	Under 2 yrs service: \$474.24; 2-3 yrs: \$503; 3-10 yrs: \$540; 10-12 yrs: \$560; 12-14 yrs: \$590; 14-16 yrs: \$630; 16-18 yrs: \$680; 18-20 yrs: \$720; 20-22 yrs: \$745; over 22 yrs: \$775.	W-4	Under 2 yrs service: \$332.90; 2-4 yrs: \$376; 4-6 yrs: \$383; 6-8 yrs: \$399; 8-10 yrs: \$416; 10-12 yrs: \$435; 12-14 yrs: \$465; 14-16 yrs: \$486; 16-18 yrs: \$504; 18-20 yrs: \$516; 20-22 yrs: \$528; 22-24 yrs: \$543; 26-30 yrs: \$575; over 30 yrs: \$595.
O-4	Under 2 yrs service: \$400.14; 2-3 yrs: \$424; 3-6 yrs: \$455; 6-8 yrs: \$465; 8-10 yrs: \$485; 10-12 yrs: \$520; 12-14 yrs: \$550; 14-16 yrs: \$570; 16-18 yrs: \$610; over 18 yrs: \$630.	W-3	Under 2 yrs: \$302.64; 2-4 yrs: \$343; 4-6 yrs: \$348; 6-8 yrs: \$353; 8-10 yrs: \$380; 10-12 yrs: \$398; 12-14 yrs: \$412; 14-16 yrs: \$427; 16-18 yrs: \$441; 18-20 yrs: \$458; 20-22 yrs: \$470; 22-26 yrs: \$487; over 26 yrs: \$506.
O-3†	Under 2 yrs service: \$326.04; 2-3 yrs: \$346; 3-4 yrs: \$372; 4-6 yrs: \$415; 6-8 yrs: \$440; 8-10 yrs: \$460; 10-12 yrs: \$480; 12-14 yrs: \$510; over 14 yrs: \$525.	W-2	Under 2 yrs: \$264.82; 2-4 yrs: \$298; 4-6 yrs: \$307; 6-8 yrs: \$328; 8-10 yrs: \$342; 10-12 yrs: \$355; 12-14 yrs: \$369; 14-16 yrs: \$381; 16-18 yrs: \$393; 18-20 yrs: \$406; 20-22 yrs: \$417; over 22 yrs: \$440.
		W1	Under 2 yrs: \$219.42; 2-4 yrs: \$266; 4-6 yrs: \$285; 6-8 yrs: \$299; 8-10 yrs: \$313; 10-12 yrs: \$334; 12-14 yrs: \$345; 14-16 yrs: \$354; 16-18 yrs: \$364; 18-20 yrs: \$375; over 20 yrs: \$390.

* While serving as Chairman of Joint Chiefs of Staff, Chief of Staff of the Army, Chief of Naval Operations, Chief of Staff of the Air Force, or Commandant of the Marine Corps, basic pay for this grade is \$1,875 regardless of cumulative years of service. † For commissioned officers who have not been credited with over 4 years' active service as an enlisted member. ‡ For commissioned officers who have been credited with over 4 years' active service as an enlisted member.

Special Incentive Pay Rates

Members of the uniformed services are entitled to receive special pay for special kinds of duty. In addition to the incentive rates for aircraft and submarine crews listed

elsewhere in this section, the following types of hazardous duty receive flat rates of \$110 per month for officers and \$55 per month for enlisted personnel.

1. Frequent and regular aerial flights not as a crew member.
2. Parachute jumping as a part of military duty.
3. Duty involving exposure to lepers.
4. Duty involving demolition of explosives.
5. Submarine escape training tank duty.
6. Deep sea diving duty (including helium-oxygen diving).
7. Human acceleration or deceleration duty.
8. Low pressure chamber duty.

Medical and Dental Officers

Monthly incentive pay for medical and dental officers is based on cumulative service:

0-2 years, \$100; 2-6 years, \$150; 6-10 years, \$200; over 10 years, \$250.

Diving as in Salvage and Repair

The monthly rate is not less than \$13 or more than \$33, plus \$5.50 for each diving hour spent in salvage or repair operations. Pay applies to pay grades E-1 through E-9 only.

Sea and Foreign Duty

Pay grade	Monthly rate	Pay grade	Monthly rate
E-7, E-8, E-9.....	\$22.50	E-4.....	\$13.00
E-6.....	20.00	E-3.....	9.00
E-5.....	16.00	E-2, E-1.....	8.00

Proficiency Pay

An enlisted member designated as possessing special proficiency in a military skill may—

(1) Be advanced to any enlisted pay grade that is higher than his pay grade at the time of designation; or

(2) Be paid proficiency pay at a monthly rate not to exceed the following maximum rates for the proficiency rating to which he

is assigned: Rating P-1, \$50; P-2, \$100; P-3, \$150.

An enlisted member with less than 8 or 10, as the case may be, cumulative years of enlisted service for basic pay purposes, who is advanced to pay grade E-8 or E-9, respectively, is entitled to the minimum amount of pay prescribed for that pay grade until his cumulative years of service entitle him to a higher rate.

Special Pay for Certain Designated Officers

Officers in pay grades O-3 through O-6 who hold positions of unusual responsibility which are of a critical nature to the service concerned, may receive special pay, in addi-

tion to any other pay prescribed by law, at a monthly rate as follows: Pay grades O-3 and O-4, \$50; O-5, \$100; O-6, \$150.

Arlington National Cemetery

Arlington National Cemetery occupies 420 acres in Virginia on the Potomac River directly opposite Washington. This land was part of the estate of John Parke Custis, Martha Washington's son, who built the mansion which later became the home of Robert E. Lee. In 1864 Arlington became a national military cemetery. Many thousands of soldiers as well as hundreds of distin-

guished Americans are buried there. In 1921, an Unknown Soldier from World War I was buried in a temporary crypt in the cemetery; the completed tomb was dedicated in 1932. Two more Unknowns, one from World War II and one from the Korean War, were buried May 30, 1958. In April 1959, the 100,000th body was interred in Arlington National Cemetery.

The American's Creed

By William Tyler Page

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies."

NOTE: William Tyler Page, Clerk of the U. S. House of Representatives, wrote "The American's Creed" in 1917. It was accepted by the House on behalf of the American people on April 3, 1918.

Incentive Pay for Hazardous Duty (As an Aircraft or Submarine Crew Member)

Pay grade	Under 2 yrs.	Over 2 yrs.	Over 3 yrs.	Over 4 yrs.	Over 6 yrs.	Over 8 yrs.	Over 10 yrs.
O-9, O-10.....	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00
O-8.....	155.00	155.00	165.00	165.00	165.00	165.00	165.00
O-7.....	150.00	150.00	160.00	160.00	160.00	160.00	160.00
O-6.....	200.00	200.00	215.00	215.00	215.00	215.00	215.00
O-5.....	190.00	190.00	205.00	205.00	205.00	205.00	205.00
O-4.....	170.00	170.00	185.00	185.00	185.00	195.00	210.00
O-3.....	145.00	145.00	155.00	165.00	180.00	185.00	190.00
O-2.....	115.00	125.00	150.00	150.00	160.00	165.00	170.00
O-1.....	100.00	105.00	135.00	135.00	140.00	145.00	155.00
W-4.....	115.00	115.00	115.00	115.00	120.00	125.00	135.00
W-3.....	110.00	115.00	115.00	115.00	120.00	120.00	125.00
W-2.....	105.00	110.00	110.00	110.00	115.00	120.00	125.00
W-1.....	100.00	105.00	105.00	105.00	110.00	120.00	125.00
E-8, E-9.....	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-7.....	80.00	85.00	85.00	85.00	90.00	95.00	100.00
E-6.....	70.00	75.00	75.00	80.00	85.00	90.00	95.00
E-5.....	60.00	70.00	70.00	80.00	80.00	85.00	90.00
E-4.....	55.00	65.00	65.00	70.00	75.00	80.00	80.00
E-3.....	55.00	60.00	60.00	60.00	60.00	60.00	60.00
E-2.....	50.00	60.00	60.00	60.00	60.00	60.00	60.00
E-1.....	50.00	55.00	55.00	55.00	55.00	55.00	55.00

Pay grade	Over 12 yrs.	Over 14 yrs.	Over 16 yrs.	Over 18 yrs.	Over 22 yrs.	Over 26 yrs.	Over 30 yrs.
O-9, O-10.....	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00
O-8.....	165.00	165.00	165.00	165.00	165.00	165.00	165.00
O-7.....	160.00	160.00	160.00	160.00	160.00	160.00	160.00
O-6.....	215.00	215.00	220.00	245.00	245.00	245.00	245.00
O-5.....	210.00	225.00	230.00	245.00	245.00	245.00	245.00
O-4.....	215.00	220.00	230.00	240.00	240.00	240.00	240.00
O-3.....	200.00	205.00	205.00	205.00	205.00	205.00	205.00
O-2.....	180.00	185.00	185.00	185.00	185.00	185.00	185.00
O-1.....	160.00	170.00	170.00	170.00	170.00	170.00	170.00
W-4.....	145.00	155.00	160.00	165.00	165.00	165.00	165.00
W-3.....	135.00	140.00	140.00	140.00	140.00	140.00	140.00
W-2.....	130.00	135.00	135.00	135.00	135.00	135.00	135.00
W-1.....	130.00	130.00	130.00	130.00	130.00	130.00	130.00
E-8, E-9.....	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-7.....	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-6.....	95.00	100.00	100.00	100.00	100.00	100.00	100.00
E-5.....	95.00	95.00	95.00	95.00	95.00	95.00	95.00
E-4.....	80.00	80.00	80.00	80.00	80.00	80.00	80.00
E-3.....	60.00	60.00	60.00	60.00	60.00	60.00	60.00
E-2.....	60.00	60.00	60.00	60.00	60.00	60.00	60.00
E-1.....	55.00	55.00	55.00	55.00	55.00	55.00	55.00

Extra Pay for Wartime Service

Act of March 3, 1847, during the Mexican War, provided for \$2 a month extra pay for "distinguished service." This continued in force beyond the war and applied in the Civil War.

In the Spanish American War, there was a 20 per cent increase of enlisted men's pay for war service.

In World War I, additional pay was offered for all types of services, usually as incentive for special qualifications as gun pointer, expert rifleman, etc. Among these items is pay for certificate of merit of \$2 a month. By the new law passed in 1920, the number of reasons for additional pay had expanded. Recipients of the Medal of Honor, Distinguished Service Cross and Distinguished Service Medal received \$2 a month extra, while each bar in lieu of these medals also

added another \$2 a month. Added to this was a foreign service bonus of 20 per cent.

Act of June 30, 1944 authorized compensation of \$5 a month to enlisted men qualified as expert infantrymen and \$10 to those qualified as combat infantrymen. These amounts were payable for the duration of war and six months thereafter.

By the Act of July 6, 1945 for the duration of war and for six months thereafter enlisted men entitled to wear Medical Badges received additional pay of \$10.

Act of July 10, 1952 authorized \$45 a month for each month beginning after May 31, 1950, for which the member was entitled to receive basic pay and during which he was a member of a combat unit in Korea. This applies to officers and enlisted men.

ALLOWANCES FOR SUBSISTENCE

Officers receive \$47.88 per month. Enlisted personnel receive allowances for subsistence under the following provisions: (1) when rations in kind are not available, \$2.57 per day; (2) when permission to mess separately is granted, \$1.10 per day; (3) * when assigned to duty under emergency conditions where no government messing facilities are available, up to and not to exceed \$3.42 per day.

* Applicable only within the U. S.

U. S. Navy Combatant Vessels

Type	Number
Carriers (CVA).....	14
Light carriers and carrier escorts.....	9
Cruisers.....	14
Destroyers and destroyer escorts.....	238
Submarines.....	113
Mine and patrol ships and auxiliaries.....	850
Total.....	1,238*

* Numbers are approximate; exact figures are classified information.

U. S. Casualties in Major Wars

Source: Department of Defense.

War	Branch of service	Numbers engaged	Battle deaths	Other deaths	Total deaths	Wounds not mortal	Total casualties ¹
Revolutionary War 1775 to 1783	Army	.....	4,044	.....	.....	6,004	.....
	Navy	.....	342	.....	.....	114	.....
	Marines	.....	49	.....	.....	70	.....
	Total	.....	4,435	.....	.....	6,188	.....
War of 1812 1812 to 1815	Army	.....	1,950	.....	.....	4,000	.....
	Navy	.....	265	.....	.....	439	.....
	Marines	.....	45	.....	.....	66	.....
	Total	286,730	2,260	.....	.....	4,505	.....
Mexican War 1846 to 1848	Army	.....	1,721	11,550	13,271	4,102	17,373
	Navy	.....	1	.....	.....	3	.....
	Marines	.....	11	.....	.....	47	.....
	Total	78,718	1,733	.....	.....	4,152	.....
Civil War ² 1861 to 1865	Army	2,128,948	138,154	221,374	359,528	280,040	639,568
	Navy	.....	2,112	2,411	4,523	1,710	6,233
	Marines	84,415	148	312	460	131	591
	Total	2,213,363	140,414	224,097	364,511	281,881	646,392
Spanish-American War 1898	Army	280,564	369	2,061	2,430	1,594	4,024
	Navy	22,875	10	0	10	47	57
	Marines	3,321	6	0	6	21	27
	Total	306,760	385	2,061	2,446	1,662	4,108
World War I 1917 to 1918	Army	4,057,101	50,510	55,868	106,378	193,663	300,041
	Navy	599,051	431	6,856	7,287	819	8,106
	Marines	78,839	2,461	390	2,851	9,520	12,371
	Total	4,734,991	53,402	63,114	116,516	204,002	320,518
World War II 1941 to 1945	Army ³	11,260,000	234,874	83,400	318,274	565,861	884,135
	Navy	4,183,466	36,950	25,664	62,614	37,778	100,392
	Marines	669,100	19,733	4,778	24,511	67,207	91,718
	Total	16,112,566	291,557	113,842	405,399	670,846	1,076,245
Korean War 1950 to 1953	Army	2,834,000	27,704	9,429	37,133	77,596	114,729
	Navy	1,177,000	458	4,043	4,501	1,576	6,077
	Marines	424,000	4,267	1,261	5,528	23,744	29,272
	Air Force	1,285,000	1,200	5,884	7,084	368	7,452
	Total	5,720,000	33,629	20,617	54,246	103,284	157,530

¹ Excludes captured or interned and missing in action who were subsequently returned to military control. ² Union forces only. Totals should probably be somewhat larger as data on disposition of prisoners are far from complete.

³ Army data include Air Force. NOTE: All data are subject to revision. For wars before World War I, information represents best data from available records. However, due to incomplete records and possible differences in usage of terminology, reporting systems, etc., figures should be considered estimates. Leaders (.....) indicate that information is not available.

Casualties in World War II

(U. S. figures are to be found on p. 416)

Country	Men in war	Battle deaths	Other deaths	Wounded	Still missing
Australia.....	1,000,000	26,976	6,877	180,864	.....
Austria.....	800,000	280,000	24,000	350,117	.....
Belgium.....	625,000	8,460	40,564 ²	55,513 ¹	.....
Brazil ³	40,334	943	32	4,222	.....
Bulgaria.....	339,760	6,671	.....	21,878	3,599
Canada.....	1,041,080	32,412	9,630	53,145	0
China ⁴	17,250,521	1,324,516	.....	1,762,006	130,154
Czechoslovakia.....	.....	6,683 ³	.....	8,017	.....
Denmark.....	.....	4,339	.....	.....	.....
Finland.....	500,000	79,047	1,961	50,000	6,000
France.....	.....	201,568	261,577	400,000	140,000
Germany.....	20,000,000	3,250,000 ⁵	3,350,000	7,250,000	1,300,000
Greece.....	.....	17,024	391,000 ⁶	47,290	.....
Hungary.....	.....	147,435	.....	89,313	125,556
India.....	2,393,891	32,121	5,360 ¹⁰	64,354	.....
Italy.....	3,100,000	149,496 ⁵	.....	66,716	135,070
Japan.....	9,700,000	1,270,000	620,000	140,000	85,000
Netherlands.....	280,000	6,500	429	2,860	87
New Zealand.....	194,000	11,625 ³	.....	17,000	46 ⁵
Norway.....	75,000	2,000	8,262	.....	0
Poland.....	.....	664,000	5,384,000 ⁷	530,000	.....
Rumania.....	650,000 ⁷	350,000 ⁸	.....	.....	180,000
South Africa, Union of.....	410,056	2,473	9,607	.....	.....
U.S.S.R.....	.....	6,115,000 ⁹	.....	14,012,000	.....
United Kingdom.....	5,896,000	357,116 ⁸	.....	369,267	46,079
Yugoslavia.....	3,741,000	305,000	1,401,000	425,000	.....

¹ Civilians only. ² Also 20,000 Jews and non-Belgians living in Belgium. ³ Deaths from all causes. ⁴ Figures cover period July 7, 1937-Sept. 2, 1945, and concern only Chinese regular troops. They do not include casualties suffered by guerrillas and local military corps. ⁵ Includes 261,000 dead of starvation. ⁶ As of Dec. 31, 1946. ⁷ Against Soviet Russia: 385,847 against Nazi Germany. ⁸ Against Soviet Russia: 169,822 against Nazi Germany. Figures include all deaths, wounded, and missing. ⁹ Army and Navy figures. ¹⁰ Does not include deaths due to diseases.

U. S. Armed Forces Personnel

Source: U. S. Department of Defense.

Year ¹	Army	Air Force ²	Navy	Marines	Men ³	Women	Coast Guard ⁴
1934.....	137,584	.....	92,312	16,361	245,299	958	9,985
1935.....	139,486	.....	95,053	17,260	250,864	935	10,303
1936.....	167,816	.....	106,292	17,248	290,403	953	9,545
1937.....	179,968	.....	113,617	18,223	310,804	1,004	10,066
1938.....	185,488	.....	119,088	18,356	321,834	1,098	9,968
1939.....	189,839	.....	125,202	19,432	333,363	1,110	10,064
1940.....	269,023	.....	160,997	28,345	456,984	1,381	13,621
1941.....	1,462,315	.....	284,427	54,359	1,794,997	6,104	19,036
1942.....	3,075,608	.....	640,570	142,613	3,831,571	27,220	58,998
1943.....	6,994,472	.....	1,741,750	308,523	8,915,248	129,497	154,976
1944.....	7,994,750	.....	2,981,365	475,604	11,229,682	222,037	169,264
1945.....	8,267,958	.....	3,380,817	474,680	11,923,250	200,205	171,518
1946.....	1,891,011	.....	983,398	155,679	2,984,096	45,992	29,736
1947.....	991,285	.....	498,661	93,053	1,564,717	18,282	18,972
1948.....	554,030	387,730	419,162	84,988	1,431,428	14,482	19,929
1949.....	660,473	419,347	449,575	85,965	1,597,280	18,080	23,326
1950.....	593,167	411,277	381,538	74,279	1,438,192	22,069	23,190
1951.....	1,531,774	788,381	736,680	192,620	3,209,830	39,625	29,000
1952.....	1,596,419	983,261	824,265	231,967	3,589,978	45,934	34,000
1953.....	1,533,815	977,593	794,440	249,219	3,509,582	45,485	34,148
1954.....	1,404,598	947,918	725,720	223,868	3,263,504	38,600	28,444
1955.....	1,109,296	959,946	660,695	205,170	2,899,916	35,191	28,500
1956.....	1,025,778	909,958	669,925	200,780	2,772,795	33,646	30,000
1957.....	997,994	919,835	677,108	200,861	2,763,625	32,173	28,322
1958.....	898,924	871,156	641,005	189,495	2,569,520 ⁵	31,176	28,889 ⁶
1959.....	889,046 ⁷	851,672 ⁷	634,286 ⁷	185,479 ⁷	.....	32,078 ⁸	29,863 ⁹

¹ As of June 30. ² Before July 26, 1947, when the National Military Establishment was established, the Air Force was a part of the Army. ³ Not including men in the Coast Guard. ⁴ Source is U. S. Coast Guard. In peacetime, the Coast Guard operates under the Department of the Treasury; in time of war, it is attached to the Navy Department. ⁵ As of May 31, 1958. ⁶ As of June 1, 1958. ⁷ As of Jan. 1, 1959. ⁸ As of Dec. 31, 1958. ⁹ As of June 1, 1959.

Casualties in World War I

Source: Department of Defense.

(U. S. figures are to be found on p. 416)

	Total mobilized forces	Killed or died ¹	Wounded	Prisoners or missing	Total casualties
Austria-Hungary.....	7,800,000	1,200,000	3,620,000	2,200,000	7,020,000
Belgium.....	267,000	13,716	44,686	34,659	93,061
British Empire ²	8,904,467	908,371	2,090,212	191,652	3,190,235
Bulgaria.....	1,200,000	87,500	152,390	27,029	266,919
France ²	8,410,000	1,357,800	4,266,000	537,000	6,160,800
Germany.....	11,000,000	1,773,700	4,216,058	1,152,800	7,142,558
Greece.....	230,000	5,000	21,000	1,000	27,000
Italy.....	5,615,000	650,000	947,000	600,000	2,197,000
Japan.....	800,000	300	907	3	1,210
Montenegro.....	50,000	3,000	10,000	7,000	20,000
Portugal.....	100,000	7,222	13,751	12,318	33,291
Rumania.....	750,000	335,706	120,000	80,000	535,706
Russia.....	12,000,000	1,700,000	4,950,000	2,500,000	9,150,000
Serbia.....	707,343	45,000	133,148	152,958	331,106
Turkey.....	2,850,000	325,000	400,000	250,000	975,000

¹ Includes deaths from all causes. ² Official figures.

Veterans' Benefits

Although programs of benefits of various kinds have a history tracing back to Colonial days, veterans of World War I were the first to receive disability compensation for injuries, allotments for the support of dependents, life insurance, complete medical care and vocational rehabilitation. Beginning with 1940, these benefits were slowly broadened.

The following benefits available to veterans of World War II and the Korean War have specific time limitations and, in most cases, are applicable only to those whose discharge was not under dishonorable conditions.

Education and Training: *Veterans of the Korean War:* For a maximum period of 1½ times the duration of active service, not exceeding 36 months, the VA pays sums varying from \$110 to \$160 per month toward subsistence, tuition, supplies, etc.

Re-employment: The veteran is to be reinstated in the same position or an equivalent one unless, in the case of a private employer, changed circumstances make this impossible.

Unemployment allowances: Korea veterans out of work are entitled to unemployment allowances of \$26 a week for up to 26 weeks. Application should be made to the local state employment office.

Loans: Only loans for the purchase or construction of a home, to buy a farm and farm equipment or business property and equipment, are permissible. The VA will guarantee the lender against loss up to 60% of a home loan with a maximum of \$7,500. On other loans, the guarantee is up to 50% with a maximum of \$4,000 involving real estate and \$2,000 on non-real

estate loans. The interest rate in all cases must not exceed 4% per year.

The following benefits are also available to those having some service-connected illness or disability:

Disability Compensation: The VA pays from \$19 to \$225 per month with additional sums for specific conditions up to \$450 per month, plus allowances for wife, children or dependent parents.

Vocational rehabilitation: Necessary training expenses, special equipment, etc., toward a definite job objective are paid for, plus a monthly allowance varying from \$65 to \$120 in addition to compensation.

Medical and dental care: This includes complete care in VA or certain other Federal hospitals. It also covers treatment (not requiring hospitalization) at a VA field station or by an approved private physician or dentist. Medicine, instruments, appliances, mechanical equipment, etc., are supplied. Full domiciliary care is also provided where necessary.

War Orphans Education: \$110 a month for up to 36 months of schooling may be paid to sons and daughters of veterans who died of service-connected causes. Students must usually be between 18 and 23.

Death benefits: Up to \$10,000 of GI Insurance may be paid to the beneficiaries of deceased veterans. Compensation to a widow is \$87 per month, with an allowance for each child.

NOTE: Since our space has permitted only a general statement of the principal benefits available to veterans, the reader is referred to his local office of the Veterans Administration (VA) for detailed information.

U. S. Postal Regulations

Source: U. S. Post Office.

FIRST CLASS:

Letters and written and sealed matter: 4¢ for each oz., except that drop letters are subject to 3¢ for each oz. when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

Government postal cards: single, 3¢; double, 6¢.

Private mailing or post cards: 3¢.

Limit of size: Min. size, 2¾" x 4"; max. 3-9/16" x 5-9/16".

Limit of weight when mailed from one first-class post office to another: 40 lb. in local, first and second zones, 20 lb. in third to eighth zones.

Limit of weight when mailed to or from second-, third- and fourth-class post offices: 70 lb.

AIR PARCEL POST (OVER 8 OZ. TO 70 LB.):

The zone rates shall apply to mailable matter of any class carried by air. Such matter shall not exceed 100 in. in length and girth combined, including written and other matter of the first class, whether sealed or unsealed.

Parcels weighing less than 10 lb. and measuring more than 84 in., but not more than 100 in. in length and girth combined, shall be subject to the 10-lb. rate.

Parcels containing first-class matter for the weights and zones indicated below must bear postage at the rate of 4¢ for each oz. or fraction thereof:

First-Class Only

Zone	Weighing over	But not over	Pay
1, 2, 3.....	15 oz.	1 lb.	\$0.64
	1 lb. 11 oz.	2 lb.	4¢ ea. oz.
	2 lb. 7 oz.	3 lb.	4¢ ea. oz.
	3 lb. 3 oz.	70 lb.	4¢ ea. oz.
4.....	1 lb. 12 oz.	2 lb.	4¢ ea. oz.
	2 lb. 9 oz.	3 lb.	4¢ ea. oz.
	3 lb. 5 oz.	4 lb.	4¢ ea. oz.
	4 lb. 2 oz.	70 lb.	4¢ ea. oz.
5.....	1 lb. 15 oz.	2 lb.	\$1.28
	2 lb. 13 oz.	3 lb.	4¢ ea. oz.
	3 lb. 11 oz.	4 lb.	4¢ ea. oz.
	4 lb. 9 oz.	5 lb.	4¢ ea. oz.
	5 lb. 7 oz.	6 lb.	4¢ ea. oz.
	6 lb. 5 oz.	7 lb.	4¢ ea. oz.
	7 lb. 3 oz.	8 lb.	4¢ ea. oz.
	8 lb. 1 oz.	70 lb.	4¢ ea. oz.

Other parcels are subject to the following rates:

Air Parcel-Post Zone Rates*

Zone and (miles)	First lb.	Addl. lbs.
First, Second & Third (to 300) .	60¢	48¢
Fourth (300-600)	65¢	50¢
Fifth (600-1,000)	70¢	56¢
Sixth (1,000-1,400)	75¢	64¢
Seventh (1,400-1,800)	75¢	72¢
Eighth (over 1,800)	80¢	80¢

* Fractions of a lb. are charged as a full lb.

The eighth-zone rate shall be charged on air parcel post between the U. S. or its Territories and possessions and overseas A.P.O.'s and Fleet post offices, as well as naval vessels and commands afloat addressed in care of Fleet post offices at New York or San Francisco.

For restrictions to certain A.P.O.'s and F.P.O.'s, consult local post office.

Limit of size to A.P.O. or F.P.O.: 100 in. length and girth; limit of weight: 70 lb.

Air parcels mailed at New York, N. Y., and addressed to Puerto Rico and the Virgin Is. are subject to the seventh-zone rate.

AIRMAIL (LIMIT 8 OZ.):

7¢ for each oz. or fraction thereof within the continental U. S., within any Territory or possession of the U. S., or between any of the foregoing. This includes airmail to or from Alaska, Hawaii, Puerto Rico, Virgin Islands of the U. S., Canton Island, Canal Zone, Guam and any other place where the U. S. mail service is in operation.

Post cards: 5¢.

SECOND CLASS (NO WEIGHT LIMIT):

Newspapers, magazines, and other periodicals containing notice of second-class entry.

For rates for publications mailed by the publishers or registered news agents, consult local postmaster.

Transient rate for matter mailed by others than the publishers or registered news agents: 2¢ for the first 2 oz., 1¢ for each additional oz. However, if the fourth-class rate is cheaper, it shall apply.

THIRD CLASS (UNDER 16 OZ.):†

Merchandise, books, printed matter, and all other mailable matter not in first or second class.

Regular rate: 3¢ for the first 2 oz., 1½¢ for each additional oz.

† Regular piece and pound rates will apply after Jan. 1, 1959, to matter sent by certain nonprofit organizations, except that the per piece minimum under bulk mailings will be 50% of the regular minimum rate.

Bulk rate: for \$20* per year or fraction thereof, separately addressed identical pieces of third-class matter in quantities of not less than 20 lb. or of not less than 200 pieces are subject to the lb. rates of postage applicable to the entire bulk mailed at one time.

The bulk rate for miscellaneous printed matter, etc., is 16¢* for each lb., with a minimum charge of 2¢† per piece. For books and catalogs of 24 pages or more, seeds, etc., the rate is 10¢ for each lb., with a minimum charge of 2¢† per piece.

Pieces of such size or form as to prevent ready facing and tying in bundles and requiring individual distributing throughout mailed singly or in bulk are subject to a minimum charge of 3½¢ each.

FOURTH CLASS (PARCEL POST) 16 OZ. AND OVER):

Merchandise, books, printed matter, and all other mailable matter not in first, second, or third classes.

The zone rates below shall apply to fourth-class matter, except catalogs, books, library books, publications or records for the blind, and certain controlled circulation publications.

Limit of size†: 72 in. in length and girth combined.

Limit of weight‡: over 8 oz. to 40 lb. in local, first, and second zones, over 8 oz. to 20 lb. in third to eighth zones.

Note: The following five items have a size limit of 100 in. in length and girth combined, a weight limit of 16 oz. to 70 lb.: (1) parcels sent to or from rural or star routes; (2) parcels sent to or from second-, third-, and fourth-class post offices; (3) parcels containing baby fowl, live plants, trees, shrubs, or agricultural commodities (not including manufactured products thereof); (4) parcels containing books; (5) parcels mailed between the U. S. and any Army or Fleet post office or between the U. S. and any Territory or possession of the U. S.

Fourth-Class Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
Local	\$.18	\$.0145
First & Second (to 150)§ .....	.23	.0395
Third (150-300) .....	.23	.0515
Fourth (300-600) .....	.24	.0690
Fifth (600-1,000) .....	.26	.0925
Sixth (1,000-1,400) .....	.28	.1195
Seventh (1,400-1,800) .....	.30	.1520
Eighth (over 1,800) .....	.32	.1805

* Effective Jan. 1, 1959. † Effective Jan. 1, 1959; to be raised to 2½¢ on July 1, 1960. ‡ When mailed from one first-class post office to another. § In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

The zone rates below shall apply to individually addressed catalogs and similar printed advertising matter in bound form weighing more than 8 oz. but not exceeding 10 lb.

Catalog Zone Rates*

Zone and (miles)	First lb.	Addl. half-lbs.
Local	\$.12	\$.0075
First & Second (to 150)† .....	.13	.0150
Third (150-300) .....	.14	.0200
Fourth (300-600) .....	.15	.0250
Fifth (600-1,000) .....	.17	.0325
Sixth (1,000-1,400) .....	.18	.0400
Seventh (1,400-1,800) .....	.19	.0500
Eighth (over 1,800) .....	.20	.0600

* Fractions of one-half cent or less are counted as one-half cent; fractions of a cent exceeding one-half cent are counted as one cent in the total amount.

† In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

BOOKS (LIMIT 70 LB.):

Books (containing no advertising matter other than incidental announcements of books), 16-mm. film in final state for viewing, 16-mm. film catalogs, school test materials, printed music (in bound or sheet form), phonograph recordings, and manuscripts for books, periodical articles, and music, 9¢ first lb., 5¢ each additional lb. (Rate applies for films and catalogs except when mailed to commercial theaters.) Must be endorsed "Educational Material."

LIBRARY BOOKS (LIMIT 70 LB.):

Books sent by authorized libraries to readers and when returned by such readers, 4¢ first lb., 1¢ each additional lb. Rate also applies to printed music (in bound or sheet form), bound volumes of academic theses, phonograph recordings and other library materials.

SPECIAL DELIVERY AND SPECIAL HANDLING:

The prepayment of the special-delivery fee entitles mail to the most expeditious handling and special delivery.

Prepayment of the special-handling fee entitles fourth-class matter to the most expeditious handling, transportation, and delivery possible, but not special delivery.

Special Delivery and Special Handling

Weight	Special delivery			Special handling (4th class only)
	First class	2nd, 3rd, 4th class		
Up to 2 lb.	30¢	45¢		25¢
2 to 10 lb.	45¢	55¢		35¢
Over 10 lb.	60¢	70¢		50¢

† Including air parcel post.

MONEY ORDERS:

Money orders for amounts from 1¢ to \$100 are issued upon written application made by the remitter or his agent showing

the amount of the order and the names and addresses of payee and remitter.*

Amount of order	Fee
\$.01 to \$ 5.00	15¢
5.01 to 10.00	20¢
10.01 to 100.00	30¢

* As of Oct. 1, 1955, 1st- and 2nd-class post offices will issue money orders without written application.

REGISTERED MAIL:

Fees for domestic registered mail (first-, second- and third-class matter, and sealed fourth-class matter on which postage at the first-class rate has been paid):

Declared value (must be full value)	Fee if mailer has no commercial or other insurance	Fee if mailer has commercial or other insurance
\$ 0.00 to \$ 10.00	\$.50 ¹	\$.50 ²
10.01 to 100.00	.75 ¹	.75 ²
100.01 to 200.00	1.00 ¹	1.00 ²
200.01 to 400.00	1.25 ¹	1.25 ²
400.01 to 600.00	1.50 ¹	1.50 ²
600.01 to 800.00	1.75 ¹	1.75 ²
800.01 to 1,000.00	2.00 ¹	2.00 ²
1,000.01 to 2,000.00	2.25 ¹	2.15 ³
2,000.01 to 3,000.00	2.50 ¹	2.30 ³
3,000.01 to 4,000.00	2.75 ¹	2.45 ³
4,000.01 to 5,000.00	3.00 ¹	2.60 ³
5,000.01 to 6,000.00	3.25 ¹	2.75 ³
6,000.01 to 7,000.00	3.50 ¹	2.90 ³
7,000.01 to 8,000.00	3.75 ¹	3.05 ³
8,000.01 to 9,000.00	4.00 ¹	3.20 ³
9,000.01 to 10,000.00	4.25 ¹	3.35 ³
10,000.01 to 1,000,000.00	4.25+ ^{4,5}	3.35+ ^{3,5}
1,000,000.01 to 15,000,000.00	152.75+ ^{4,6}	151.85+ ^{3,6}
Over 15,000,000.00	(^{4,7})	(^{3,7})

¹ Postal liability: declared value. ² Postal liability: Declared value or prorated. ³ Postal liability: \$1,000 maximum or prorated. ⁴ Postal liability: \$10,000. ⁵ Fee increased 15 cents per \$1,000 or fraction above \$10,000. ⁶ Fee increased 10 cents per \$1,000 or fraction above \$10,000. ⁷ Additional fee charges may be applied based on consideration of weight, space and value.

Restricted delivery, 50¢. Return receipts: showing to whom and when delivered, 10¢; to whom, when and address where delivered, 35¢; requested after mailing, showing to whom and when delivered, 25¢.

CERTIFIED MAIL:

Certified mail service provides for a receipt to the sender and a record of delivery at the office of address. No record is kept at the office where mailed. It is handled in the ordinary mails and no insurance coverage is provided.

Any first-class mail having no intrinsic value will be accepted as certified mail. This does not exclude articles of a non-negotiable character and other matter which would involve a cost of duplication if lost or destroyed. The mail may be sent by air on payment of the required postage. Return receipt service, requested at the

time of mailing only, and special delivery service are available.

Fees are as follows: Fee in addition to postage, 20¢; return receipt showing to whom and when delivered, 10¢; return receipt showing to whom, when, and address where delivered, 35¢; restricted delivery, 50¢.

INSURED MAIL:

Fees for domestic insured mail (third- and fourth-class matter):

Insurance coverage	Fee
\$ 0.00 to \$ 10.00	10¢
10.01 to 50.00	20¢
50.01 to 100.00	30¢
100.01 to 200.00	40¢

C.O.D. MAIL:

Fees for domestic unregistered C.O.D. mail (third- and fourth-class matter and sealed domestic mail matter of any class bearing postage at the first-class rate):

Indemnity limit	Fee
\$.01 to \$ 5.00 .....	.30
5.01 to 10.00 .....	.40
10.01 to 25.00 .....	.60
25.01 to 50.00 .....	.70
50.01 to 100.00 .....	.80
100.01 to 150.00 .....	.90
150.01 to 200.00	1.00

Fees for domestic registered C.O.D. mail (sealed domestic mail of any class bearing postage at the first-class rate):

Amount collectible and indemnity payable	Fee
\$.01 to \$ 10.00 .....	.80
10.01 to 50.00	1.10
50.01 to 100.00	1.20
100.01 to 200.00*	1.40

* Limit of collections.

When indemnity in excess of \$200 is desired, the fees for domestic registered C.O.D. mail are:

Indemnity limit	Fee
\$200.01 to \$ 300.00	1.50
300.01 to 400.00	1.60
400.01 to 500.00	1.70
500.01 to 600.00	1.80
600.01 to 700.00	1.90
700.01 to 800.00	2.00
800.01 to 1000.00	2.10

MISCELLANEOUS:

In registered and insured mail, a receipt card will be returned to the sender upon request. When a card is requested showing to whom and when the delivery was made, the rate is 10¢ if the request is made

at the time of mailing, 25¢ if made thereafter. When a card is requested showing to whom and when the delivery was made and the address, the rate is 35¢ and must be paid at the time of mailing.

Fees for effecting delivery of domestic registered, insured, and C.O.D. mail to addressee only or to addressee or order: 50¢.

Fee for notifying sender or his representative of inability to deliver a C.O.D. article: 5¢.

Certificates of mailing for ordinary mail of any class: 5¢ for each article described thereon. Additional certificates for ordinary, registered, insured and C.O.D. mail: 2¢ for each article described thereon.

C.O.D. mail cannot be sent to Navy personnel on board ships or at overseas shore stations.

FOREIGN REGULAR MAIL:

Letters and letter packages: To Canada and Mexico, 4¢ per oz. or fraction. To all other countries, 8¢ for 1st oz., 5¢ per additional oz. or fraction. Weight limit: 4 lb. 6 oz. (60 lb. to Canada).

Post cards: To Canada and Mexico, 3¢ each, 6¢ with reply paid. To all other countries, 5¢ each, 10¢ with reply paid.

FOREIGN AIRMAIL:

Air-letter sheets: Air letters, consisting of sheets which can be folded into the form of an envelope and sealed, are acceptable for dispatch by airmail to all foreign countries. The sheets are sold at all post offices at 10¢ each. No enclosures, adhesive tape or stickers are permitted.

Post cards: 7¢ each to Canada and Mexico; 10¢ each to all other countries.

Letters and letter packages: See table.

Airmail Rates from U. S. to Selected Countries

Country	Air-mail ¹	Air parcel post			Country	Air-mail ¹	Air parcel post		
		Initial unit ²	Addl. weight ³	Limit, lbs.			Initial unit ²	Addl. weight ³	Limit, lbs.
Albania.....	\$.15	....	....	..	Indonesia.....	\$.25	\$1.75	\$1.00	11
Algeria.....	.15	....	....	..	Iran.....	.25	1.47	.72	44
Argentina.....	.10	\$1.51	\$.76	44	Iraq.....	.25	1.47	.72	44
Australia.....	.25	1.62	1.27	22	Ireland.....	.15	.97	.37	22
Austria.....	.15	1.05	.49	22	Israel.....	.25	1.42	.67	22
Bahamas.....	.10	.83	.14	22	Italy.....	.15	1.08	.50	44
Belgium.....	.15	.98	.43	44	Jamaica.....	.10	.95	.18	22
Bermuda.....	.10	.76	.13	22	Japan.....	.25	1.27	.91	22
Bolivia.....	.10	1.08	.40	44	Jordan.....	.26	1.27	.65	22
Brazil.....	.10	1.48	.64	44 ⁴	Korea, Rep. of.....	.25	1.37	1.01	22
British Guiana.....	.10	1.07	.39	22	Lebanon.....	.25	1.22	.64	44 ¹⁰
British Honduras.....	.10	.80	.20	22	Liberia.....	.25	.86	.56	22
Bulgaria.....	.15	....	....	..	Mexico.....	.07 ⁶	.64	.18	44
Burma.....	.25	....	....	..	Morocco.....	.15	1.19	.54	44
Canada ⁸ , 9.....	.07	....	....	..	Netherlands.....	.15	.89	.44	44
Ceylon.....	.25	1.75	1.00	22	New Zealand.....	.25	1.82	1.17	22
Chile.....	.10	1.31	.56	22	Nicaragua.....	.10	.80	.29	44
China ⁷.....	.25	1.43 ³	1.08	44	Norway.....	.15	1.02	.47	44
Colombia.....	.10	1.21	.40	44	Pakistan.....	.25	1.63	.84	22
Costa Rica.....	.10	.79	.29	44	Panamá.....	.10	.91	.21	44
Cuba.....	.10	(*)	(*)	22	Paraguay.....	.10	1.00	.50	44
Czechoslovakia.....	.15	.88	.48	44	Peru.....	.10	1.23	.37	44
Denmark.....	.15	.97	.47	44	Philippines.....	.25	1.81	1.26	44 ⁹
Dominican Republic.....	.10	.86	.22	44	Poland.....	.15	1.06	.52	44
Ecuador.....	.10	1.24	.33	44	Portugal.....	.15	.71	.44	22
Egypt.....	.15	1.35	.64	22	Rumania.....	.15	....	....	..
El Salvador.....	.10	1.02	.26	44	Saudi Arabia.....	.25	1.60 ¹¹	.80 ¹¹	22 ¹¹
Ethiopia.....	.25	1.34	.76	44	Spain.....	.15	1.25	.50	22
Finland.....	.15	.88	.51	44	Surinam.....	.10	.92	.41	44
France.....	.15	1.22	.44	44	Sweden.....	.15	.85	.49	44
French Guiana.....	.10	.79	.44	11	Switzerland.....	.15	.92	.46	44
Germany.....	.15	.95	.45	44	Syria.....	.25	1.22	.64	44 ¹³
Greece.....	.15	1.07	.57	22	Thailand.....	.25	2.29	1.50	22
Guatemala.....	.10	1.01	.25	44	Turkey.....	.15	1.15	.57	44
Haiti.....	.10	.72	.21	44	U. of S. Africa.....	.25	1.31	.94	11
Honduras, Rep. of.....	.10	.78	.28	44 ¹⁰	U.S.S.R.....	.15	1.66	.63	44
Hong Kong.....	.25	1.74	1.39	22	United Kingdom.....	.15	1.00	.41	22
Hungary.....	.15	....	....	..	Uruguay.....	.10	1.26	.76	44
Iceland.....	.15	.89	.33	44	Venezuela.....	.10	1.27	.36	44
India.....	.25	1.70	.96	22	Yugoslavia.....	.15	.87	.52	44

National Committee Chairmen Since 1921

Source: Republican and Democratic National Committees.

Chairman and (state)	Term	Chairman and (state)	Term
Republican		Republican (Contd.)	
John T. Adams (Iowa).....	1921-24	Leonard W. Hall (N. Y.).....	1953-57
William M. Butler (Mass.).....	1924-28	Meade Alcorn (Conn.).....	1957-59
Hubert Work (Colo.).....	1928-29	Thruston B. Morton (Ky.).....	1959-
Claudius H. Huston (Tenn.).....	1929-30	Democratic	
Simeon D. Fess (Ohio).....	1930-32	Cordell Hull (Tenn.).....	1921-24
Everett Sanders (Ind.).....	1932-34	Clem Shaver (W. Va.).....	1924-28
Henry P. Fletcher (Pa.).....	1934-36	John J. Raskob (N. Y.).....	1928-32
John Hamilton (Kans.).....	1936-40	James A. Farley (N. Y.).....	1932-40
Joseph W. Martin, Jr. (Mass.).....	1940-42	Edward J. Flynn (N. Y.).....	1940-43
Harrison E. Spangler (Iowa).....	1942-44	Frank C. Walker (Mont.).....	1943-44
Herbert Brownell, Jr. (N. Y.).....	1944-46	Robert E. Hannegan (Mo.).....	1944-47
Carroll Reece (Tenn.).....	1946-48	J. Howard McGrath (R. I.).....	1947-49
Hugh D. Scott, Jr. (Pa.).....	1948-49	William M. Boyle, Jr. (Mo.).....	1949-51
Guy G. Gabrielson (N. J.).....	1949-52	Frank E. McKinney (Ind.).....	1951-52
Arthur E. Summerfield (Mich.).....	1952-53	Stephen A. Mitchell (Ill.).....	1952-54
C. Wesley Roberts (Kans.).....	1953-53	Paul M. Butler (Ind.).....	1955-

Republican National Committee: 1625 Eye St. NW., Washington 6, D. C.

Democratic National Committee: 1001 Connecticut Ave. NW., Washington 6, D. C.

The Confederate States of America

State	Seceded from Union	Readmitted to Union	State	Seceded from Union	Readmitted to Union
1. South Carolina....	Dec. 20, 1860	July 18, 1868	7. Texas.....	Mar. 2, 1861	Mar. 30, 1870
2. Mississippi.....	Jan. 9, 1861	Feb. 23, 1870	8. Virginia.....	Apr. 17, 1861	Jan. 27, 1870
3. Florida.....	Jan. 10, 1861	June 25, 1868	9. Arkansas.....	May 6, 1861	June 22, 1868
4. Alabama.....	Jan. 11, 1861	July 13, 1868	10. North Carolina....	May 20, 1861	July 20, 1868
5. Georgia.....	Jan. 19, 1861	July 15, 1870	11. Tennessee.....	June 24, 1861	July 24, 1866
6. Louisiana.....	Jan. 26, 1861	May 26, 1865			

NOTE: 4 other slave states—Delaware, Kentucky, Maryland and Missouri—remained in the Union.

Footnotes for Table on Opposite Page

¹ For letters and letter packages. Unless otherwise indicated, rate shown is per each ½ oz., and weight is limited to 4 lb., 6 oz. For rates for commercial papers, printed matter, samples of merchandise, small packages, 8-oz. merchandise packages, combination packages and articles grouped together, consult local postmaster. ² Rate for 4 oz. or fraction thereof. ³ Rate for each additional 4 oz. or fraction thereof. ⁴ Parcels for Brazil exceeding 22 lb. accepted for following offices only: Belem (Para), Belo Horizonte, Florianopolis, Fortaleza, Manaus, Pelotas, Porto Alegre, Recife (Pernambuco), Rio de Janeiro, Rio Grande (Rio Grande do Sul), Salvador (Bahia), Santos and Sao Paulo. ⁵ Per oz.; post cards each 5¢. ⁶ Articles limited to 60 lb. in weight. ⁷ Registered and ordinary articles in regular mails for Island of Formosa (Taiwan) will be accepted for air transmission to destination. ⁸ Parcels for many offices are limited to 22 lb. or 7 lb. Consult local postmaster for limitations. ⁹ Service to Cuba is limited to parcels weighing over 8 oz. and up to 22 lb. Cost for initial weight unit, which is over 8 oz. and up to 12 oz., is \$1.10. Each additional 4 oz. or fraction is 15¢. Packages weighing 8 oz. or less must not have customs declarations or parcel post stickers attached. ¹⁰ Parcels for Honduras exceeding 22 lb. accepted for following offices only: Amapala, Comayagua, La Kelba, Olanchito, Progreso, Puerto Castilla, Puerto Cortez, San Pedro Sula, Tegucigalpa and Tela. ¹¹ Air parcels for Saudi Arabia limited to the following places only: Al Gaba, Al Lith, Al Wejh, Doha, Dammam, Dhahran, Hassa, Jiddah, Jizam, Katif, Khobar, Mecca, Medina, Qunfidha, Rabigh, Rastanurra, Rivadh, Umm Lej and Yenbo. ¹² Limit to Chahba and Salkhad is 11 lb.; limit to Tel-Abiad and Yabroud is 22 lb. ¹³ Parcels for Lebanon exceeding 11 lb. not accepted for following offices, Ain-Zhalt, Bairo, Falougha, Hermel, Koubayat, Maaser-el-Chouf, Ras-Baalbeck and Souk-el-Gharb. NOTE: For rates to countries not shown in this table, consult local postmaster. Leaders (....) indicate that there is no air-parcel-post service to the country.

Presidents and Vice Presidents of the U. S.

Presidents & (parties) ¹	Born	State of birth	Religion	Died	Term	Are at inaug.	Age at death	Vice Presidents ²	State of birth
1. Washington (F) ³	Feb. 22, 1732	Va.	Episcopalian	Dec. 14, 1799	1789-1797	57	67	1. John Adams	Mass.
2. J. Adams (F)	Oct. 30, 1735	Mass.	Unitarian	July 4, 1826	1797-1801	61	90	2. Thomas Jefferson ⁴	Va.
3. Jefferson (DR)	Apr. 13, 1743	Va.	Deist	July 4, 1826	1801-1809	57	83	3. Aaron Burr	N. Y.
4. Madison (DR)	Mar. 16, 1751	Va.	Episcopalian	June 28, 1836	1809-1817	57	85	4. George Clinton	Mass.
5. Monroe (DR)	Apr. 28, 1758	Va.	Episcopalian	July 4, 1831	1817-1825	58	73	5. Elbridge Gerry ⁵	N. Y.
6. J. Q. Adams (DR)	July 11, 1767	Mass.	Unitarian	Feb. 23, 1843	1825-1829	57	80	6. Daniel D. Tompkins	S. C.
7. Jackson (D)	Mar. 15, 1767	S. C.	Presbyterian	June 8, 1845	1829-1837	61	78	7. John C. Calhoun	N. Y.
8. Van Buren (D)	Dec. 5, 1782	N. Y.	Reformed Dutch	July 24, 1862	1837-1841	54	79	8. Martin Van Buren	Ky.
9. W. H. Harrison (W) ⁸	Feb. 9, 1773	Va.	Episcopalian	Apr. 4, 1841	1841-1841	68	68	9. Richard M. Johnson	Va.
10. Tyler (W)	Mar. 29, 1790	Va.	Episcopalian	Jan. 18, 1862	1841-1845	51	71	10. John Tyler	Pa.
11. Polk (D)	Nov. 2, 1795	N. C.	Methodist	June 15, 1849	1845-1849	49	53	11. George M. Dallas	N. Y.
12. Taylor (W ⁹)	Nov. 24, 1784	Va.	Episcopalian	July 9, 1850	1849-1850	64	65	12. Millard Fillmore	N. C.
13. Fillmore (W)	Jan. 7, 1800	N. Y.	Episcopalian	Mar. 8, 1874	1850-1853	50	74	13. William R. King ⁹	Ky.
14. Pierce (D)	Nov. 23, 1804	N. H.	Episcopalian	Oct. 8, 1869	1853-1857	48	64	14. John C. Breckinridge	Maine
15. Buchanan (D)	Apr. 23, 1791	Pa.	Presbyterian	June 1, 1868	1857-1861	65	77	15. Hannibal Hamlin	N. C.
16. Lincoln (R) ¹⁰	Feb. 12, 1809	Ky.	Liberal	Apr. 15, 1865	1861-1865	52	56	16. Andrew Johnson ¹⁷	N. Y.
17. Johnson (U) ¹⁷	Dec. 29, 1808	N. C.	(¹⁵)	July 31, 1875	1865-1869	56	66	17. Schuyler Colfax	N. H.
18. Grant (R)	Apr. 27, 1822	Ohio	Methodist	July 23, 1885	1869-1877	46	63	18. Henry Wilson ¹¹	N. Y.
19. Hayes (R)	Oct. 4, 1822	Ohio	Methodist	Jan. 17, 1893	1877-1881	54	70	19. William A. Wheeler	Vt.
20. Garfield (R) ¹²	Nov. 19, 1831	Ohio	Disciples of Christ	Sept. 19, 1881	1881-1881	49	49	20. Chester A. Arthur	Ohio
21. Arthur (R)	Oct. 5, 1830	Vt.	Episcopalian	Nov. 18, 1886	1881-1885	50	56	21. Thomas A. Hendricks ¹³	Vt.
22. Cleveland (D)	Mar. 18, 1837	N. J.	Presbyterian	June 24, 1908	1885-1889	47	71	22. Levi P. Morton	N. J.
23. B. Harrison (R)	Aug. 20, 1833	Ohio	Presbyterian	Mar. 13, 1901	1889-1893	55	67	23. Adlai E. Stevenson	N. Y.
24. Cleveland (D)		Ohio	Methodist		1893-1897	54	58	24. Garret A. Hobart ¹⁵	N. Y.
25. McKinley (R) ¹⁴	Jan. 29, 1843	Ohio	Methodist	Sept. 14, 1901	1897-1901	42	60	25. Theodore Roosevelt	Ohio
26. T. Roosevelt (R)	Oct. 27, 1858	N. Y.	Reformed Dutch	Jan. 6, 1919	1901-1909	51	72	26. Charles W. Fairbanks	N. Y.
27. Taft (R)	Sept. 15, 1857	Ohio	Unitarian	Mar. 8, 1930	1909-1913	56	67	27. James S. Sherman ¹⁶	Ind.
28. Wilson (D)	Dec. 28, 1856	Va.	Presbyterian	Feb. 3, 1924	1913-1921	55	57	28. Thomas R. Marshall	Vt.
29. Harding (R) ⁸	Nov. 2, 1865	Ohio	Baptist	Aug. 2, 1923	1921-1923	55	60	29. Calvin Coolidge	Ohio
30. Coolidge (R)	July 4, 1872	Vt.	Congregationalist	Jan. 5, 1933	1923-1929	54	63	30. Charles G. Dawes	Kans.
31. Hoover (R)	Aug. 10, 1874	Iowa	Quaker	Jan. 5, 1933	1929-1933	54	63	31. Charles Curtis	Tex.
32. F. D. Roosevelt (D) ⁸	Jan. 30, 1882	N. Y.	Episcopalian	Apr. 12, 1945	1933-1945	51	63	32. John N. Garner	Iowa
33. Truman (D)	May 8, 1884	Mo.	Baptist		1945-1953	60	60	33. Henry A. Wallace	Ky.
34. Eisenhower (R)	Oct. 14, 1890	Tex.	Presbyterian		1953-	62	62	34. Harry S. Truman	Mo.
								35. Alben W. Barkley	Ky.
								36. Richard M. Nixon	Calif.

Wives and Children of the Presidents of the United States

President	Wife's name	Year and place of wife's birth	Married	Wife Died	Children of President*	
					Sons	Daughters
Washington	Mrs. Martha Dandridge Custis	1732, Va.	1759	1802	..	..
John Adams	Abigail Smith	1744, Mass.	1764	1818	3	2
Jefferson	Mrs. Martha Wayles Skelton	1748, Va.	1772	1782	1	5
Madison	Mrs. Dorothy "Dolly" Payne Todd	1768, N. C.	1794	1849	..	..
Monroe	Eliza Kortright	1768, N. Y.	1786	1830	..	2
J. Q. Adams	Louisa Catherine Johnson	1775, England	1797	1852	3	1
Jackson	Mrs. Rachel Donelson Robards	1767, Va.	1791	1828	..	..
Van Buren	Hannah Hoes	1783, N. Y.	1807	1819	4	..
W. H. Harrison	Anna Symmes	1775, N. J.	1795	1864	6	4
Tyler	Letitia Christian	1790, Va.	1813	1842	3	4
	Julia Gardiner	1820, N. Y.	1844	1889	5	2
Polk	Sarah Childress	1803, Tenn.	1824	1891	..	..
Taylor	Margaret Smith	1788, Md.	1810	1852	1	5
Fillmore	Abigail Powers	1798, N. Y.	1826	1853	1	1
	Mrs. Caroline Carmichael McIntosh	1813, N. J.	1838	1881	..	..
Pierce	Jane Means Appleton	1806, N. H.	1834	1863	3	..
Buchanan	(Unmarried)	....	....	....	..	..
Lincoln	Mary Todd	1818, Ky.	1842	1882	4	..
Johnson	Eliza McCordle	1810, Tenn.	1827	1876	3	2
Grant	Julia Dent	1826, Mo.	1848	1902	3	1
Hayes	Lucy Ware Webb	1831, Ohio	1852	1889	7	1
Garfield	Lucretia Rudolph	1832, Ohio	1858	1918	5	2
Arthur	Ellen Lewis Herndon	1837, Va.	1859	1880	2	1
Cleveland	Frances Folsom	1864, N. Y.	1886	1947	2	3
B. Harrison	Caroline Lavinia Scott	1832, Ohio	1853	1892	1	1
	Mrs. Mary Scott Lord Dimmick	1858, Pa.	1896	1948	..	1
McKinley	Ida Saxton	1847, Ohio	1871	1907	..	2
T. Roosevelt	Alice Hathaway Lee	1861, Mass.	1880	1884	..	1
	Edith Kermit Carow	1861, Conn.	1886	1948	4	1
Taft	Helen Herron	1861, Ohio	1886	1943	2	1
Wilson	Ellen Louise Axson	1860, Ga.	1885	1914	..	3
	Mrs. Edith Bolling Galt	1872, Va.	1915	....	..	..
Harding	Mrs. Florence Kling DeWolfe	1860, Ohio	1891	1924	..	..
Coolidge	Grace Anna Goodhue	1879, Vt.	1905	1957	2	..
Hoover	Lou Henry	1875, Iowa	1899	1944	2	..
F. D. Roosevelt	Anna Eleanor Roosevelt	1884, N. Y.	1905	....	5	1
Truman	Bess Wallace	1885, Mo.	1919	....	..	1
Eisenhower	Mamie Geneva Doud	1896, Iowa	1916	....	2	..

* Includes children who died in infancy.

Annual Salaries of Federal Officials

Source: U. S. Department of the Treasury

President of the U. S.	\$100,000 ¹	Secretaries of the Army, Navy, Air Force.	22,000
Vice President of the U. S.	35,000 ²	Senators and Representatives.	22,500
Cabinet members.	25,000	Speaker of the House.	35,000 ³
Undersecretaries of executive departments.	21,000 ³	Chief Justice of the Supreme Court.	35,500
Deputy Secretary of Defense.	22,500	Associate Justices of the Supreme Court.	35,000

¹ Plus taxable \$50,000 for expenses and a nontaxable sum (not to exceed \$40,000 a year) for traveling and official entertainment expenses. ² Plus taxable \$10,000 for expenses. ³ Except Undersecretary of State, who receives \$22,500.
NOTE: All salaries shown above are taxable.

Footnotes for Table on Preceding Page

¹ F—Federalist; DR—Democratic-Republican; D—Democratic; W—Whig; R—Republican; U—Union. ² Same party as President, except as indicated. ³ No party for first election. The party system in the U. S. made its appearance during Washington's first term. ⁴ Democratic-Republican. ⁵ Died in office Apr. 20, 1812. ⁶ Died in office, Nov. 23, 1814. ⁷ Resigned Dec. 28, 1832, to become U. S. Senator. ⁸ Died in office. ⁹ Died in office Apr. 18, 1853. ¹⁰ Died in office (shot Apr. 14 by John Wilkes Booth). ¹¹ Died in office Nov. 22, 1875. ¹² Died in office (shot July 2 by Charles J. Guiteau). ¹³ Died in office Nov. 25, 1885. ¹⁴ Died in office (shot Sept. 6 by Leon F. Czolgosz). ¹⁵ Died in office Nov. 21, 1899. ¹⁶ Died in office Oct. 30, 1912. ¹⁷ The Republican National Convention of 1864 adopted the name Union party. It renominated Lincoln for President; for Vice President it nominated Johnson, a War Democrat. Although frequently listed as a Republican Vice President and President, Johnson undoubtedly considered himself strictly a member of the Union party. When that party broke apart after 1868, he returned to the Democratic party. ¹⁸ Johnson was not a professed church member; however, he admired the Baptist principles of church government.

BIOGRAPHIES OF THE PRESIDENTS

GEORGE WASHINGTON

was born February 22, 1732 (February 11, 1731/2, old style) in Westmoreland County, Virginia. He early trained as a surveyor; but in 1752 he was appointed adjutant in the Virginia militia, and for the next three years he took an active part in the wars against the French and Indians, serving as General Braddock's aide in the disastrous campaign against Fort Duquesne. In 1759 he resigned from the militia, married Martha Dandridge Custis, a widow, and settled down as a gentleman farmer at Mount Vernon.

As a militiaman, he had been exposed to the arrogance of the British officers, and his experience as a planter with British commercial restrictions increased his anti-British sentiment. He opposed the Stamp Act of 1765 and after 1770 became increasingly prominent in organizing resistance. A delegate to the Continental Congress, Washington was selected as commander in chief of the Continental Army and took command at Cambridge, Massachusetts, on July 3, 1775.

Inadequately supported and sometimes covertly sabotaged by the Congress, in charge of troops who were inexperienced, badly equipped, and impatient of discipline, Washington conducted the war on the policy of avoiding major engagements with the British and wearing them down by harassing tactics. His able generalship, along with the French alliance and the growing weariness within Britain, brought the war to a conclusion with the surrender of Cornwallis at Yorktown on October 19, 1781.

The chaotic years under the Articles of Confederation led Washington to return to public life in the hope of promoting the formation of a strong central government. He presided over the Constitutional Convention and yielded to the universal demand that he serve as first President. In office, he sought to unite the nation in the service of establishing the authority of the new government at home and abroad. Greatly distressed by the emergence of the Hamilton-Jefferson rivalry, he worked to maintain neutrality but actually sympathized more with Hamilton. Following his unanimous re-election in 1792, his second term was dominated by the Federalists. His Farewell Address rebuked party spirit and warned against foreign entanglements.

He died at Mt. Vernon on December 14, 1799. Tall, dignified and impressive, Washington gave a public impression of austerity, though he was capable of gaiety in private. His life was characterized by a

strict sense of duty to his people. The standard biographies are by Fitzpatrick, Ford, Hughes, and Stephenson.

JOHN ADAMS

was born on October 30 (October 19, old style), 1735, at Braintree (now Quincy), Massachusetts. A Harvard graduate, he considered teaching and the ministry but finally turned to law and was admitted to the bar in 1758. He opposed the Stamp Act, served as lawyer for patriots indicted by the British and, by the time of the Continental Congresses, was in the vanguard of the movement for independence. In 1778 he went to France as commissioner. Subsequently he helped negotiate the peace treaty with Britain, and in 1785 became the U. S. envoy to London. Resigning in 1788, he was elected Vice President under Washington, and was re-elected in 1792.

Though a Federalist, Adams did not get along with Hamilton, who sought to prevent his election to the presidency in 1796, and thereafter intrigued against his administration. Adams was chosen with 71 electoral votes to 68 for his closest competitor, Thomas Jefferson, who became Vice President. In 1798 Adams' independent policy averted a war with France but completed the break with Hamilton and the right-wing Federalists while, at the same time, the enactment of the Alien and Sedition Acts, directed against foreigners and against critics of the government, exasperated the Jeffersonian opposition. The split between Adams and Hamilton elected Jefferson in 1800. Adams retired to his home in Quincy, Massachusetts. He later corresponded with Jefferson and they died on the same day, July 4, 1826.

Stout, somewhat vain and irascible, Adams was honest, fearless and essentially fair-minded. His *Defence of the Constitutions of Government of the United States* (1787) contains original and striking if conservative political ideas. He married Abigail Smith in 1764, and their life together was long and happy. The standard biographies are by Morse and Chinard.

THOMAS JEFFERSON

was born on April 13 (April 2, old style), 1743, at Shadwell in Goochland (now Albemarle) County, Virginia. A William and Mary graduate, he studied law but from the start showed an interest in science and philosophy. His literary skill and political clarity brought him to the forefront

of the revolutionary movement in Virginia. As delegate to the Continental Congress, he drafted the Declaration of Independence. In 1776 he entered the Virginia House of Delegates and initiated a comprehensive reform program for the abolition of feudal survivals in land tenure and the separation of church and state.

In 1779 he became governor, but constitutional limitations on his power combined with his own lack of executive energy caused an unsatisfactory administration, culminating in Jefferson's virtual abdication when the British invaded Virginia in 1781. He now retired to his beautiful home at Monticello, to his wife, Martha Wayles Skelton, whom he had married in 1772 and who died in 1782, and to his children.

Jefferson's *Notes on Virginia* (1784-85) illustrate his many-faceted interests, his limitless intellectual curiosity, his deep faith in agrarian democracy. Sent to Congress in 1783, he helped lay down the decimal system and drafted basic reports on the organization of the western lands. In 1785 he was appointed minister to France, where the Anglo-Saxon liberalism he had drawn from Locke was stimulated by contact with the thought which would soon ferment in the French Revolution. In 1789 Washington appointed him Secretary of State. While favoring the Constitution and a strengthened central government, Jefferson came to believe that Hamilton contemplated the establishment of a monarchy. Growing differences resulted in Jefferson's resignation on Dec. 31, 1793.

Elected Vice President in 1796, Jefferson continued to serve as spiritual leader of the opposition to Federalism, particularly to the repressive Alien and Sedition Acts. He was elected President in 1801 by the House of Representatives as a result of Hamilton's decision to throw the Federalist votes to him rather than to Aaron Burr, who had tied him in electoral votes. The purchase of Louisiana from France in 1803, though in violation of his earlier constitutional scruples, was the most notable act of his administration. Re-elected in 1804 with 162 electoral votes to 14 for the Federalist Charles C. Pinckney, Jefferson tried desperately during his second term to keep the United States out of the Napoleonic Wars in Europe, employing to this end the unpopular embargo policy.

After his retirement to Monticello in 1809, he developed his interest in education, founding the University of Virginia and watching its development with never-flagging interest. He died at Monticello on July 4, 1826. Tall, loose-jointed, a poor speaker, Jefferson had an enormous variety of interests and skills, ranging from education and science to architecture and music. Economically his conception of democracy presupposed an essentially rural

community of small freeholds; but his deep and abiding faith in the common man provides inspiration for future generations. The standard biographies are by Chinard, Bowers, Kimball, Randall, and Malone.

JAMES MADISON

was born in Port Conway, Virginia, on March 16, 1751 (March 5, 1750/1, old style). A Princeton graduate, he joined the struggle for independence on his return to Virginia in 1771. In the seventies and eighties he was active both in state politics, where he championed the Jefferson reform program, and in the Continental Congress. He was influential in the Constitutional Convention as leader of the group favoring a strong central government and as recorder of the debates; and he subsequently wrote, in collaboration with Alexander Hamilton and John Jay, the *Federalist* papers to aid the campaign for the adoption of the Constitution.

In the new Congress, Madison soon emerged as the leader in the House of the men who opposed Hamilton's financial program and his pro-British leanings in foreign policy. Retiring from Congress in 1797, he continued active in Virginia and drafted the Virginia Resolution protesting the Alien and Sedition Acts. His intimacy with Jefferson made him the natural choice for Secretary of State in 1801.

In 1809 Madison succeeded Jefferson as President, with 122 electoral votes to 47 for the Federalist, C. C. Pinckney, and 6 scattering. His attractive wife, Dolley Payne Todd, whom he married in 1794, brought a new social sparkle to the executive mansion. In the meantime, increasing tension with Britain culminated in the War of 1812—a war for which the United States was unprepared, and for which Madison lacked the executive talent to clear out incompetence and mobilize the nation's energies. Madison was re-elected in 1812, with 128 electoral votes to 89 for the Federalist, De Witt Clinton. In 1814 the British actually captured Washington and forced Madison to flee to Virginia.

In his domestic program, Madison capitulated to the Hamiltonian policies that he had resisted twenty years before, signing bills to establish a United States Bank and a higher tariff. Following his presidency, he remained in retirement in Virginia until his death on June 28, 1836. Small, wrinkled, unimpressive, Madison had an acute political intelligence but lacked executive force. The standard biographies are by Hunt, Brant, and Rives.

JAMES MONROE

was born on April 28, 1758, in Westmoreland County, Virginia. A William and Mary graduate, he served in the army during

the first years of the Revolution and was wounded at Trenton. He then entered Virginia politics and later national politics under the sponsorship of Jefferson. In 1786 he married Eliza Kortright.

Fearing centralization, Monroe opposed the adoption of the Constitution and, as senator from Virginia, was highly critical of the Hamiltonian program. In 1794 he was appointed minister to France where his ardent sympathies with the Revolution exceeded the wishes of the State Department. A troubled diplomatic career ended with his recall in 1796. From 1799 to 1802 he was governor of Virginia. In 1803 Jefferson sent him to France to help negotiate the Louisiana Purchase and for the next few years he was active in various continental negotiations.

In 1808 Monroe flirted with the radical wing of the Republican party, which opposed Madison's candidacy; but the presidential boom came to naught and, after a brief term as governor of Virginia in 1811, Monroe accepted Madison's offer of the State Department. During the war he vainly sought a field command and served as Secretary of War from Sept., 1814, to Mar., 1815.

Elected President in 1816 with 183 electoral votes to 34 for the Federalist Rufus King, and re-elected without opposition in 1820, Monroe, the last of the Virginia dynasty, pursued the course of systematic tranquilization which won for his terms the name "the era of good feeling." He continued Madison's surrender to the Hamiltonian domestic program, signed the Missouri Compromise, acquired Florida and, with the able assistance of his Secretary of State, John Quincy Adams, promulgated the Monroe Doctrine in 1823, declaring against foreign colonization or intervention in the Americas. He died in New York City on July 4, 1831.

A sound man of medium abilities, Monroe possessed qualities of judgment rather than of leadership. The standard biographies are by Morgan, Gilman, and Styron.

JOHN QUINCY ADAMS

was born on July 11, 1767, at Braintree (now Quincy), Massachusetts, the son of John Adams. Mass spent his early years in Europe with his father, graduated from Harvard, and entered law practice. His anti-Jeffersonian newspaper articles won him political attention. In 1794 he became minister to the Netherlands, the first of several diplomatic posts which occupied him until his return to Boston in 1801. In 1797 he married Louisa Catherine Johnson.

In 1803 he was elected to the Senate, nominally as a Federalist, but his repeated displays of independence on such issues as the Louisiana Purchase and the embargo caused his party to compel his resignation

and ostracize him socially. In 1809 Madison rewarded him for his support of Jefferson by appointing him minister to St. Petersburg. He helped negotiate the Treaty of Ghent in 1814 and in 1815 became minister to London. In 1817 Monroe appointed him Secretary of State where he served with great distinction, gaining Florida from Spain without hostilities and playing an equal part with Monroe in formulating the Monroe Doctrine.

When no presidential candidate received a majority of electoral votes in 1824, Adams, with the support of Henry Clay, was elected by the House in 1825 over Andrew Jackson, who had the original plurality. Adams had ambitious plans of government activity to foster internal improvements and promote the arts and sciences; but congressional obstructionism combined with his own unwillingness or inability to play the role of a politician meant that little was accomplished. Retiring to Quincy after his defeat in 1828, he was elected to the House of Representatives in 1831 where, though nominally a Whig, he pursued as ever an independent course. He led the fight to force Congress to receive anti-slavery petitions and fathered the Smithsonian Institution.

Stricken on the floor of the House, he died on February 23, 1848. Tactless, brusque, conscientious, a rough and savage debater, Adams spared neither himself nor his enemies. His long and detailed *Diary* gives a unique picture of the personalities and politics of the times. The standard biographies are by Morse and Clark.

ANDREW JACKSON

was born on March 15, 1767, in what is now generally agreed to be Waxhaw, South Carolina. After a turbulent boyhood as an orphan and a British prisoner, he moved west to Tennessee where he soon qualified for law practice but found time for such frontier pleasures as horse racing, cock-fighting, and dueling. His marriage to Rachel Donelson Robards in 1791 was complicated by subsequent legal uncertainties about the status of her divorce. During the seventeen-nineties Jackson served in the Tennessee constitutional convention, the federal House of Representatives, the federal Senate, and the Tennessee supreme court.

After some years as a country gentleman, living at the Hermitage near Nashville, Jackson in 1812 was given command of Tennessee troops sent against the Creeks. He defeated the Indians at Horseshoe Bend in 1814; subsequently he became a major general and won the Battle of New Orleans over veteran British troops though after the treaty of peace had been signed at Ghent. In 1818 General Jackson invaded Florida, captured Pensacola and hanged two Englishmen named Arbuthnot and

Ambrister, creating an international incident. A presidential boom began for him in 1821 and in its service he returned to the Senate (1823-25). Though he won a plurality of electoral votes in 1824, he lost in the House when Clay threw his strength to Adams; he won easily in 1828 by an electoral vote of 178 to 83.

As President, Jackson greatly expanded the power and prestige of the presidential office and carried through an unexampled program of domestic reform, vetoing the bill to extend the United States Bank, moving toward a hard-money currency policy, and checking the program of federal internal improvements. He also vindicated federal authority against South Carolina with its doctrine of nullification and against France on the question of debts. The support given his policies by the workingmen of the East as well as by the farmers of the East, West, and South resulted in his triumphant re-election in 1832 over Clay by an electoral vote of 219 to 49, with 18 scattering and 2 not cast.

After watching the inauguration of his hand-picked successor, Martin Van Buren, Jackson retired to the Hermitage, where he maintained a lively interest in national affairs until his death on June 8, 1845. A tall, dignified man with a drawn and wrinkled face, Jackson has been endowed by partisan historians with a violence and irascibility he appears not to have possessed. His great contribution was to adjust the presidential office and the democratic doctrines of Jefferson to the new situation created by the Industrial Revolution. The standard biographies are by James, Bassett, and Parton.

MARTIN VAN BUREN

was born on December 5, 1782, at Kinderhook, New York. After graduating from the village school, he became a law clerk, entered practice in 1803, and soon became active in state politics as state senator and attorney general. In 1821 he was elected to the United States Senate. He threw the support of his efficient political organization, known as the Albany Regency, to William H. Crawford in 1824 and to Jackson in 1828. After leading the opposition to Adams' administration in the Senate, he served briefly as governor of New York and resigned to become Jackson's Secretary of State. He soon became on close personal terms with Jackson and played an important part in turning the Jacksonian program from the lines intended by his original Western backers.

In 1832 Van Buren became Vice President; in 1836, President, with an electoral vote of 170 against 124 scattered among four opponents. The Panic of 1837 overshadowed his term. He attributed it to

the overexpansion of the credit and favored the establishment of an independent treasury as repository for the federal funds. In 1840 he established a ten-hour day on public works. Defeated by Harrison in 1840, he was the leading contender for the Democratic nomination in 1844 until he publicly opposed immediate annexation of Texas and was subsequently beaten by the Southern delegations at the Baltimore convention. This incident increased his growing misgivings about the slave power.

After working behind the scenes among the antislavery Democrats, Van Buren joined in the movement which led to the Free-Soil party and became its candidate for President in 1848. He subsequently returned to the Democratic party while continuing to object to its pro-Southern policy. He died in Kinderhook on July 24, 1862. His *Autobiography* throws valuable sidelights on the political history of the times.

Small, erect, dapper, Van Buren had a reputation for slick politicking which won him such sobriquets as the Little Magician and the Red Fox of Kinderhook; but, as his later career showed, he was capable of taking firm and unpopular stands on public issues. His wife Hannah Hoes, whom he married in 1807, died in 1819.

The standard biographies are by Shepard and Lynch.

WILLIAM HENRY HARRISON

was born in Charles City County, Virginia, on February 9, 1773. Joining the army in 1791, he was active in Indian fighting in the Northwest, became secretary of the Northwest Territory in 1798 and governor of Indiana in 1800. He married Anna Symmes in 1795. Growing discontent over white encroachments on Indian lands led to the formation of an Indian alliance under Tecumseh to resist further aggressions. In 1811 Harrison won a nominal victory over the Indians at Tippecanoe and in 1813 a more decisive one at the Battle of the Thames, where Tecumseh was killed.

After resigning from the army in 1814, Harrison had an obscure career in politics and diplomacy, ending up in twenty years as a county recorder in Ohio. Nominated for President in 1835 as a military hero whom the conservative politicians hoped to be able to control, he ran surprisingly well against Van Buren in 1836. Four years later he defeated Van Buren by an electoral vote of 234 to 60 but caught pneumonia and died in Washington a month after his inauguration, April 4, 1841. Harrison's qualities were those of a soldier rather than of a statesman or political leader. The standard biographies are by Cleaves and Goebel.

JOHN TYLER

was born in Charles City County, Virginia, on March 29, 1790. A William and Mary graduate, he entered law practice and politics, serving in the House of Representatives (1816-21) and later as governor of Virginia (1825-27), and as senator. A thorough-going strict constructionist, he supported Crawford in 1824 and Jackson in 1828 but broke with Jackson over his Bank policy and became a member of the Southern state-rights group which cooperated with the Whigs. In 1836 he resigned from the Senate rather than follow instructions from the Virginia legislature to vote for a resolution expunging censure of Jackson from the Senate record.

Elected Vice President on the Whig ticket in 1840, Tyler succeeded to the presidency on Harrison's death. His strict-constructionist views soon caused a split with the Henry Clay wing of the Whig party and a stalemate on domestic questions. Tyler's more considerable achievements were his support of the Webster-Ashburton Treaty with Britain and his success in bringing about the annexation of Texas through joint congressional resolution.

After his presidency he lived in retirement in Virginia until the outbreak of the Civil War, when he emerged briefly as chairman of a peace convention and then as delegate to the provisional Congress of the Confederacy. He died on January 18, 1862. He was married first to Letitia Christian March in 1813 and, two years after her death in 1842, to Julia Gardiner. Witty, amiable, courteous, Tyler was a Virginia gentleman whose presidency was hamstrung by the basic contradiction between his own ideas and those of the party which put him on the ticket as Vice President. The standard biographies are by Chitwood and Tyler.

JAMES KNOX POLK

was born in Mecklenburg County, North Carolina, on November 2, 1795. A graduate of the University of North Carolina, he moved west to Tennessee, was admitted to the bar and soon became prominent in state politics. In 1825 he was elected to the House of Representatives where he opposed Adams and, after 1829, became Jackson's floor leader in the fight against the Bank. In 1835 he became Speaker of the House. In 1839 he was elected governor of Tennessee but was beaten in tries for re-election in 1841 and 1843.

The supporters of Van Buren for the Democratic nomination in 1844 counted on Polk as his running mate; but, when Van Buren's stand on Texas alienated Southern support, the convention swung to Polk on the ninth ballot. He was elected over Henry Clay, the Whig candidate, by an

electoral vote of 170 to 105. Rapidly disillusioning those who thought that he would not run his own administration, Polk proceeded steadily and precisely to achieve four major objectives—the acquisition of California, the settlement of the Oregon question, the reduction of the tariff, and the establishment of the independent treasury. He also enlarged the Monroe Doctrine to exclude all non-American intervention in American affairs, whether forcible or not, and he forced Mexico into a war which he waged to a successful conclusion. His wife Sarah Childress, whom he married in 1824, was a woman of charm and ability. Polk died in Nashville, Tennessee, on June 15, 1849.

Serious, hardworking, lacking in color, Polk has long been underrated by historians who mistakenly regarded him as a slaveholders' puppet; in fact, few presidents have so thoroughly controlled their own administration or have so ably accomplished the purposes they set for themselves. Polk's *Diary* reflects the mood and problems of his presidency. The standard biography is by McCormac.

ZACHARY TAYLOR

was born at Montebello, Orange County, Virginia, on November 24, 1784. Embarking on a military career in 1808, Taylor fought in the War of 1812, the Black Hawk War, and the Seminole War, holding in between garrison jobs on the frontier or desk jobs in Washington. A brigadier general as a result of his victory over the Seminoles at Lake Okeechobee (1837), Taylor held a succession of Southwestern commands and in 1846 established a base on the Rio Grande, where his forces engaged in hostilities which precipitated the war with Mexico. He captured Monterrey in Sept., 1846, and, disregarding Polk's orders to stay on the defensive, defeated Santa Anna at Buena Vista in February, 1847, ending the war in the northern provinces.

Though Taylor had never cast a vote for President, his party affiliations were Whiggish, and his availability was increased by his difficulties with Polk. He was elected President over the Democrat Lewis Cass by an electoral vote of 163 to 127. During the revival of the slavery controversy, which was to result in the Compromise of 1850, Taylor began to take an increasingly firm stand against appeasing the South; but he died in Washington on July 9, 1850, in the midst of the fight over the Compromise. He married Margaret Mackall Smith in 1810. His bluff and simple soldierly qualities won him the name of Old Rough and Ready. During his brief term as President he displayed a growing insight into political questions. The standard biographies are by Hamilton and by Bent and McKinley.

MILLARD FILLMORE

was born at Locke, Cayuga County, New York, on January 7, 1800. A lawyer, he entered politics as an Antimason under the sponsorship of Thurlow Weed, editor and party boss, and subsequently followed Weed into the Whig party. He served in the House of Representatives (1833-35 and 1837-43) and played a leading role in writing the tariff of 1842. Defeated for governor of New York in 1844, he became comptroller in 1848, was put on the Whig ticket with Taylor as a concession to the Clay wing of the party and became President upon Taylor's death in 1850.

As President, Fillmore broke with Weed and William H. Seward and associated himself with the pro-Southern Whigs, supporting the Compromise of 1850. Defeated for the Whig nomination in 1852, he ran for President in 1856 as candidate of the American or Know-Nothing party, which sought to unite the country against foreigners in the alleged hope of diverting it from the explosive slavery issue. Fillmore opposed Lincoln during the Civil War. He died in Buffalo on March 8, 1874. He was married in 1826 to Abigail Powers, who died in 1853, and in 1858 to Caroline Carmichael McIntosh. Urbane, gracious, colorless, and weak, Fillmore was an undistinguished President. The standard biography is by Griffis.

FRANKLIN PIERCE

was born at Hillsboro, New Hampshire, on November 23, 1804. A Bowdoin graduate and lawyer, he won rapid political advancement in the Democratic party, in part because of the prestige of his father, Governor Benjamin Pierce. By 1831 he was Speaker of the New Hampshire House of Representatives; from 1833 to 1837 he served in the federal House and from 1837 to 1842 in the Senate. His wife, Jane Means Appleton, whom he had married in 1834, disliked Washington and the somewhat dissipated life led by Pierce; and in 1842 Pierce, resigning from the Senate, took up a successful law practice in Concord, New Hampshire.

During the Mexican War Pierce was a brigadier general. Thereafter he continued to oppose antislavery tendencies within the Democratic party. As a result, he was the Southern choice to break the deadlock at the Democratic convention of 1852 and was nominated on the 49th ballot. Pierce rolled up 254 electoral votes to 42 for Winfield Scott, the Whig candidate.

As President, Pierce followed a course of appeasing the South at home and of playing with schemes of territorial expansion abroad. The failure of both his foreign and domestic policies prevented his renomination; and he died in Concord, New Hampshire, on October 8, 1869, in relative ob-

scurity. A kindly and courteous person, Pierce was weak, unstable, and lacking in presidential qualities. The standard biography is by Nichols.

JAMES BUCHANAN

was born near Mercersburg, Pennsylvania, on April 23, 1791. A Dickinson graduate and a lawyer, he entered Pennsylvania politics as a Federalist. With the disappearance of the Federalist party, he became a Jacksonian Democrat. He served with ability in the House (1821-31), as minister to St. Petersburg (1832-33) and in the Senate (1834-45), and in 1845 became Polk's Secretary of State. Disappointed in the presidential nomination in 1852, Buchanan became minister to Britain in 1853 where he participated with other American diplomats in drafting the expansionist Ostend Manifesto.

In 1856 Buchanan received the Democratic nomination and won the election, gaining 174 electoral votes to 114 for John C. Frémont, the Republican candidate, and 8 for Millard Fillmore, American party. The growing crisis over slavery presented Buchanan with problems he lacked the will to tackle. His appeasement of the South alienated the Stephen Douglas wing of the Democratic party without reducing Southern militancy on slavery issues. While denying the right of secession, Buchanan also denied that the federal government could do anything about it. He supported the administration during the Civil War and died in Lancaster, Pennsylvania, on June 1, 1868.

The only President to remain a bachelor throughout his term, Buchanan used his charming niece Harriet Lane as White House hostess. Legalistic, indecisive, and timorous as President, Buchanan filled his other public offices capably. The standard biography is by Curtis.

ABRAHAM LINCOLN

was born in Hardin (now Larue) County, Kentucky, on February 12, 1809. His family moved to Indiana and then to Illinois, and Lincoln gained what education he could along the way. While reading law, he worked in a store, managed a mill, surveyed, and split rails. In 1834 he went to the state legislature as a Whig and became the party's floor leader. For the next twenty years he remained in law practice in Springfield, except for a single term (1847-49) in Congress, where he denounced the Mexican War. In 1855 he was a candidate for senator and in 1856 he joined the new Republican party.

A leading but unsuccessful candidate for the vice-presidential nomination with Frémont, Lincoln gained national attention in 1858 when, as Republican candidate for

senator from Illinois, he engaged in a series of debates with Stephen A. Douglas, the Democratic candidate. He lost the senatorial election, but continued to prepare the way for the 1860 Republican convention and was rewarded with the presidential nomination on the third ballot. He polled 180 electoral votes, as against the 123 of his three opponents, but had only a plurality of the popular vote.

From the start, Lincoln made clear that, unlike Buchanan, he believed the national government had the power to crush the rebellion. Not an abolitionist, he held the slavery issue subordinate to that of preserving the Union but soon perceived that the war could not be brought to a successful conclusion without freeing the slaves. His administration was hampered by the incompetence of many Union generals, the inexperience of the troops, and the harassing political tactics both of the Republican Radicals, who favored a hard policy toward the South, and the Democratic Copperheads, who desired a negotiated peace. The Gettysburg Address of November 19, 1863, marks the high point in the record of American eloquence. His patient search for a winning combination finally brought Generals Ulysses S. Grant and William T. Sherman to the top; and their series of victories in 1864 dispelled the mutterings from both Radicals and Peace Democrats which at one time seemed to threaten Lincoln's re-election. He received 212 electoral votes to 21 for George B. McClellan, the Democratic candidate. His inaugural address urged leniency toward the South: "With malice toward none, with charity for all . . . let us strive on to finish the work we are in; to bind up the nation's wounds . . ." This policy aroused growing opposition on the part of the Republican Radicals, but Lincoln was shot by John Wilkes Booth at Ford's Theater, Washington, on April 14, 1865, before the matter could be put to test. He died the following day.

Lincoln's marriage to Mary Todd in 1842 was often unhappy and turbulent, in part because of his wife's pronounced instability. By his remarkable literary artistry, his essential patience and devotion, his profound sense of the importance of government by, for and of the people, by the manner of his life and of his death, Lincoln has won a unique place in the hearts of Americans. The standard biographies are by Sandburg, Herndon, Nicolay, and Hay.

ANDREW JOHNSON

was born at Raleigh, North Carolina, on December 29, 1808. Self-educated, he became a tailor in Greeneville, Tennessee, but soon went into politics, where he rose steadily. From 1843 to 1853 he served in the House of Representatives, 1853-57 as governor of Tennessee, and in 1857 was

elected Senator. Politically he was a Jacksonian Democrat, and his specialty was the fight for a more equitable land policy. Alone among the Southern Senators, he stood by the Union during the Civil War. In 1862 he became war governor of Tennessee and carried out a thankless and difficult job with great courage. Johnson became Lincoln's running mate in 1864 as result of an attempt to give the ticket a nonpartisan and nonsectional character. Succeeding to the presidency on Lincoln's death, Johnson sought to carry out his policy but without his political skill. The result was a hopeless conflict with the Radical Republicans who dominated Congress, passed measures over Johnson's vetoes, and attempted to limit the power of the executive concerning appointments and removals. The conflict culminated with Johnson's impeachment for attempting to remove his disloyal Secretary of War in defiance of the Tenure of Office Act which required senatorial concurrence for such dismissals. The opposition failed by one vote to get the two-thirds necessary for conviction.

After his presidency, Johnson maintained an interest in politics and in 1875 was elected to the Senate. He died near Carter Station, Tennessee, on July 31, 1875. He married Eliza McCardle in 1827. An honest, courageous, and intelligent man, Johnson lacked the tact, patience, and self-control to be an effective President.

The standard biographies are by Winston, Stryker, and Milton.

ULYSSES SIMPSON GRANT

was born (as Hiram Ulysses Grant) at Point Pleasant, Ohio, on April 27, 1822. He finished West Point in 1843 and served without particular distinction in the Mexican War. In 1848 he married Julia Dent. He resigned from the army in 1854, following warnings from his commanding officer about his drinking habits, and for the next six years held a wide variety of jobs in the Middle West. With the outbreak of the Civil War, he sought a command and soon, to his surprise, was made a brigadier general. His continuing successes in the western theaters, culminating in the capture of Vicksburg in 1863, brought him national fame and soon the command of all the Union armies. His dogged, implacable policy of concentrating on dividing and destroying the Confederate armies brought the war to an end in 1865. In 1866 he was made full general.

Grant's relations with Johnson grew steadily worse; and in 1868, as the Republican candidate for President, Grant was elected with 214 electoral votes to 80 for the Democrat Horatio Seymour. From the start Grant showed his unfitness for the office. His cabinet was weak, his do-

mestic policy was confused, many of his intimate associates were corrupt. The notable achievement in foreign affairs was the settlement of controversies with Great Britain in the Treaty of London (1871), negotiated by his able Secretary of State, Hamilton Fish.

Nominated for a second term, he defeated Horace Greeley, the Democratic and Liberal Republican candidate, 286 votes to 63. The Panic of 1873 created difficulties for his second term.

After retiring from office, Grant toured Europe for two years and returned in time to accede to a third-term boom, but was beaten in the convention of 1880. Illness and bad business judgment darkened his last years, but he worked steadily at the *Personal Memoirs* which were to be so successful when published after his death at Mount McGregor, near Saratoga, New York, on July 23, 1885. Inarticulate, taciturn, loyal to his friends, he was an able general who should never have accepted the presidency. The standard biographies are by Hesseltine and Woodward.

RUTHERFORD BIRCHARD HAYES

was born at Delaware, Ohio, on October 4, 1822. A graduate of Kenyon College and the Harvard Law School, he practiced law in Sandusky and then in Cincinnati, Ohio. In 1852 he married Lucy Webb. A Whig, he joined the Republican party in 1855. During the Civil War he rose to the rank of major general. He served in Congress from 1865 to 1867 and then confirmed a reputation for honesty and efficiency in two terms as governor of Ohio. His re-election as governor in 1875 made him the logical candidate for those Republicans who wished to stop James G. Blaine in 1876, and he was successfully nominated.

The result of the election was for some time in doubt and hinged upon disputed returns from South Carolina, Louisiana, Florida, and Oregon. Samuel J. Tilden, the Democratic candidate, had the larger popular vote but was adjudged by the strictly partisan decisions of the Electoral Commission to have one less electoral vote, 185 to 184. The national acceptance of this result was due in part to the general understanding that Hayes would pursue a conciliatory policy toward the South. He withdrew the troops from the South, took a conservative position on financial and labor issues, and urged civil service reform.

Hayes served only one term by his own wish and spent the rest of his life in various humanitarian endeavors. He died in Fremont, Ohio, on January 17, 1893. A hard-working, conscientious, sensible man, Hayes represented the best type of Republican of his day. The standard biographies are by Eckenrode and Williams.

JAMES ABRAHAM GARFIELD,

the last President to be born in a log cabin, was born at Cuyahoga County, Ohio, on November 19, 1831. A Williams graduate, he taught school for a time and entered Republican politics in Ohio. In 1858 he married Lucretia Rudolph. During the Civil War he had a promising career, rising to the rank of major general of volunteers; but in 1863 he was elected to the House of Representatives where he served until 1880. His oratorical and parliamentary abilities soon made him the leading Republican in the House, though his record was marred by his unorthodox acceptance of a fee in the DeGolyer paving contract case and by suspicions of his complicity in the *Crédit Mobilier* scandal.

In 1880 Garfield was elected to the Senate, but instead became the presidential candidate on the 36th ballot as a result of a deadlock in the Republican convention. He gained 214 electoral votes to 155 for General Winfield Scott Hancock, the Democratic candidate. Garfield's administration was barely under way when he was shot by Charles J. Guiteau, a disappointed office seeker, in July. He died in Elberon, New Jersey, on September 19, 1881. An attractive and eloquent man, he was much beloved in his day.

The standard biographies are by Smith and Caldwell.

CHESTER ALAN ARTHUR

was born at Fairfield, Vermont, on October 5, 1830. A graduate of Union College, he became a successful New York lawyer. In 1859 he married Ellen Herndon. During the Civil War he held administrative jobs in the Republican state administration and in 1871 was appointed collector of the Port of New York by Grant. This post gave him control over considerable patronage; and, though not personally corrupt, Arthur managed his power in the interests of the New York machine so openly that President Hayes in 1877 called for an investigation, and in 1878 Arthur was suspended from his responsibilities.

In 1880 Arthur was nominated for Vice President in the hope of conciliating the followers of Grant and the powerful New York machine. As President on Garfield's assassination, Arthur, stepping out of his familiar role as spoilsman, backed civil service reform, reorganized the cabinet and prosecuted political associates accused of post office graft. Losing machine support and failing to gain the reformers, he was not renominated. He died in New York City on November 18, 1886. A tall, handsome, dignified man with real administrative abilities, he was a better President than his previous record promised. The standard biography is by Howe.

STEPHEN GROVER CLEVELAND

was born at Caldwell, New Jersey, on March 18, 1837. He was admitted to the bar in Buffalo, New York, in 1859 and lived there as a lawyer, with occasional incursions into Democratic politics, for more than twenty years. He did not participate in the Civil War. As mayor of Buffalo in 1881, he carried through a reform program so ably that the Democrats ran him successfully for governor in 1882. In 1884 he won the Democratic nomination for President. The campaign contrasted Cleveland's spotless public career with the uncertain record of James G. Blaine, the Republican candidate, and Cleveland received enough Mugwump (Independent Republican) support to win by 219 to 182 electoral votes.

As President, Cleveland pushed civil service reform, opposed the pension grab and attacked the high tariff rates. While in the White House he married Frances Folsom (1886). Renominated in 1888, Cleveland was defeated by Benjamin Harrison, polling more popular but fewer electoral votes. In 1892 he was re-elected over Harrison, 277 to 145, with 22 votes for James B. Weaver, the Populist candidate. When the Panic of 1893 burst upon the country, Cleveland's attempts to solve it by sound-money measures alienated the free-silver wing of the party, while his tariff policy alienated the protectionists. In 1894 he sent troops to break the Pullman strike. In foreign affairs his firmness caused Great Britain to back down in the Venezuela border dispute.

In his last years Cleveland was an active and much respected public figure. He died in Princeton, New Jersey, on June 24, 1908. An honest, stubborn, high-principled man, Cleveland was an old-fashioned liberal in the nineteenth-century sense who was baffled by the new problems of industrial society. The standard biographies are by Nevins and McElroy.

BENJAMIN HARRISON

was born in North Bend, Ohio, on August 20, 1833, the grandson of William Henry Harrison. A graduate of Miami University, he took up the law in Indiana and became active in Republican politics. In 1853 he married Caroline Lavinia Scott. During the Civil War he rose to the rank of brigadier general. A sound-money Republican, he was elected senator from Indiana in 1880 and in 1888 received the Republican nomination for President on the 8th ballot. Though behind on the popular vote, he won over Grover Cleveland in the electoral college by 233 to 168.

As President, Benjamin Harrison failed to please either the bosses or the reform element in the party. In foreign affairs he backed Secretary of State Blaine, whose policy foreshadowed later American im-

perialism. In 1892 Harrison was renominated, but Cleveland beat him in the election. His wife died in the White House in 1892, and Harrison married her niece, Mary Scott (Lord) Dimmick, in 1896. After his presidency, he resumed law practice. He died in Indianapolis, Indiana, on March 13, 1901. Harrison was an honest man of very medium abilities.

WILLIAM MCKINLEY

was born in Niles, Ohio, on January 29, 1843. A graduate of Allegheny College, he rose from the ranks to become a major in the Civil War. Subsequently he opened a law office in Canton, Ohio, and in 1871 married Ida Saxton. Elected to Congress in 1876, he served there steadily till 1891, except for 1883-85. His faithful advocacy of business interests culminated in the passage of the highly protective McKinley Tariff of 1890. With the support of Mark Hanna, a shrewd Cleveland businessman interested in safeguarding tariff protection, McKinley became governor of Ohio in 1892 and Republican presidential candidate in 1896. The business community, alarmed by the progressivism of William Jennings Bryan, the Democratic candidate, spent considerable money to assure McKinley's victory, which was by the margin of 271 to 176 in the electoral college.

The chief event of McKinley's administration was the war with Spain, which resulted in our acquisition of the Philippines and other islands. With imperialism as an issue, McKinley defeated Bryan again in the election of 1900 by 292 to 155. On September 6, 1901, he was shot at Buffalo by Leon F. Czolgosz, an anarchist, and he died there on September 14.

The standard biography is by Olcott.

THEODORE ROOSEVELT

was born in New York City on October 27, 1858. A Harvard graduate, he was early interested in ranching, in politics, and in writing picturesque historical narratives. He was a Republican member of the New York Assembly in 1882-84, an unsuccessful candidate for mayor of New York in 1886, a U. S. Civil Service Commissioner under Harrison, Police Commissioner of New York City in 1895, and Assistant Secretary of the Navy under McKanley in 1897. After exuding a belligerence which helped bring on the war with Spain, he resigned in 1898 to help organize a volunteer regiment named the Rough Riders and take a more direct part in the war. Always publicity-shrewd, he won the New York gubernatorial nomination in 1898 in spite of pronounced lack of enthusiasm on the part of the bosses.

After two years of T.R. in Albany, the New York bosses succeeded in getting him the vice-presidential nomination in 1900.

Roosevelt accepted it with reluctance, feeling that his career had been ruined. As President on McKinley's assassination, he perceived the new popular mood of progressivism and initiated a policy of trust busting, designed to control giant corporations. He also strengthened government powers over interstate commerce and launched a conservation program to save natural resources. In foreign affairs he pursued a truculent policy, permitting the instigation of a revolt in Panamá to dispose of Colombian objections to the Panama Canal and helping to maintain the balance of power in the East by bringing the Russo-Japanese war to an end. In 1904 he decisively defeated Alton B. Parker, his conservative Democratic opponent, by an electoral margin of 336 to 140.

Following his second term he went big-game hunting in Africa and toured Europe. On his return to the United States, his increasing coldness toward Taft led him to overlook his earlier disclaimer of third-term ambitions and to re-enter politics. Defeated by the machine in the Republican convention of 1912, he organized the Progressive party and polled more votes than Taft, though the split brought about the election of Wilson. From 1915 on, Roosevelt strongly favored intervention in the European war. He became deeply embittered at Wilson's refusal to allow him to raise a volunteer division. He died in Oyster Bay, New York, on January 6, 1919. He was married twice: in 1880 to Alice Hathaway Lee, who died in 1884; and in 1886 to Edith Kermit Carow.

The athletic advocate of the strenuous life, with his high voice, prominent teeth, and thick glasses, Roosevelt captured the imagination of the American people. He was one of the great personalities of American history. The standard biography is by Pringle.

WILLIAM HOWARD TAFT

was born in Cincinnati, Ohio, on September 15, 1857. A Yale graduate, he entered Ohio Republican politics in the eighteen eighties. In 1886 he married Helen Herron. From 1887 to 1890, he served on the Ohio superior court; 1890-92, as solicitor general of the United States; 1892-1900, on the federal circuit court. In 1900 McKinley appointed him president of the Philippine Commission and in 1901 governor general. Taft had great success in pacifying the Filipinos, solving the problem of the church lands, improving economic conditions and establishing limited self-government. His period as Secretary of War 1904-08 further demonstrated his capacity as administrator and conciliator; and he was Roosevelt's hand-picked successor in 1908.

In the election he polled 321 electoral votes to 162 for William Jennings Bryan.

As President, though he carried on many of Roosevelt's policies, Taft got into increasing trouble with the progressive wing of the party and displayed mounting irritability and indecision. After his defeat in 1912, he became professor of constitutional law at Yale. In 1921 he was appointed Chief Justice of the United States. He died in Washington on March 8, 1930. Enormously large, deliberate, and good-humored, Taft excelled as an administrator and judge, not as a political leader.

The standard biography is by Pringle.

THOMAS WOODROW WILSON

was born in Staunton, Virginia, on December 28, 1856. A Princeton graduate, he turned from law practice to post-graduate work in political science at Johns Hopkins University, receiving his Ph.D. in 1886. He taught at Bryn Mawr, Wesleyan, and Princeton, and in 1902 was made president of Princeton. After an unsuccessful attempt to democratize the social life of Princeton, he welcomed an invitation in 1910 to be the Democratic gubernatorial candidate in New Jersey. His success in fighting the machine and putting through a reform program attracted national attention.

In 1912, after a protracted contest at Baltimore, Wilson won the Democratic nomination on the 46th ballot. In the election he received 435 electoral votes to 88 for Roosevelt and 8 for Taft. During his first term Wilson proceeded under the standard of the New Freedom to enact a program of domestic reform, including the Federal Reserve Act, the Clayton Antitrust Act, the establishment of the Federal Trade Commission, and other measures designed to restore competition in the face of the great monopolies. In foreign affairs, while privately sympathetic with the Allies, he strove to maintain strict neutrality in the European war and warned both sides against encroachments on American interests.

Re-elected in 1916 as a peace candidate, he tried to mediate between the warring nations; but, when the Germans resumed unrestricted submarine warfare in 1917, Wilson brought the United States into what he now believed was a war to make the world safe for democracy. He supplied the classic formulations of Allied war aims; and the armistice of November, 1918, was negotiated on the basis of Wilson's Fourteen Points. In 1919 he strove at Versailles to lay the foundations for enduring peace. He accepted the imperfections of the Versailles Treaty in the expectation that they could be remedied by action within the

League of Nations. He probably could have secured ratification of the treaty if he had adopted a more conciliatory attitude toward the mild reservationists; but his insistence on all or nothing eventually caused the diehard isolationists and diehard Wilsonites to unite in rejecting a compromise.

In September, 1919, Wilson suffered a paralytic stroke which limited his future activity. After the presidency he lived on in retirement in Washington, dying February 3, 1924. He was married twice—in 1885 to Ellen Louise Axson, who died in 1914, and in 1915 to Edith Bolling Galt. A man of high principle, inspiring eloquence, and great intellectual ability, Wilson was the first leader to fire the imagination of the masses of the world with the vision of world peace. The standard biography is by Baker.

WARREN GAMALIEL HARDING

was born in Morrow County, Ohio, on November 2, 1865. After attending Ohio Central College, Harding became interested in journalism and in 1884 bought the *Marion (Ohio) Star*. In 1891 he married a wealthy widow, Florence Kling De Wolfe. As his paper prospered, he entered Republican politics, serving as state senator (1899–1903), and as lieutenant governor (1904–06). In 1910 he was defeated for governor but in 1914 was elected to the Senate. His reputation as orator made him keynoter in the 1916 convention.

When the 1920 Republican convention was deadlocked between Leonard Wood and Frank O. Lowden, Harding was made the dark-horse nominee on his solemn affirmation that there was no reason in his past that he should not be. Straddling the League question, Harding was elected easily, with 404 electoral votes to 127 for James M. Cox, his Democratic opponent. His cabinet contained some able men, but also some manifestly unfit for public office. Harding's own intimates were mediocre when they were not corrupt. The impending disclosure of scandals in the Interior and Justice departments and in the Veterans' Bureau, as well as political setbacks, profoundly worried him. On his return from Alaska in 1923, he died suddenly at San Francisco on August 2. A handsome and genial man, undiscriminating in his associates, lacking in political ideas or fortitude, Harding was totally unfitted for the presidency.

JOHN CALVIN COOLIDGE

was born in Plymouth, Vermont, on July 4, 1872. An Amherst graduate, he went into law practice at Northampton, Massachusetts, in 1897. He married Grace Anna Goodhue in 1905. He entered Republican

state politics, becoming successively mayor of Northampton, state senator, lieutenant governor and, in 1919, governor. His conduct in regard to the Boston police strike in 1919 won him a somewhat undeserved reputation for decisive action and brought him the Republican vice-presidential nomination in 1920. After Harding's death Coolidge handled the Washington scandals with care and finally managed to save the Republican party from public blame for the widespread corruption.

In 1924 Coolidge won re-election without difficulty, getting 382 electoral votes to 136 for the Democrat, John W. Davis, and 13 for Robert M. La Follette running on the Progressive ticket. His second term, like his first, was characterized by a general satisfaction with the existing economic order. He stated that he did not choose to run in 1928.

After his presidency, Coolidge lived quietly in Northampton, writing an unilluminating *Autobiography* and conducting a syndicated column. He died in Northampton, Massachusetts, on January 5, 1933. His dry, Yankee humor, his frugality and glumness made him a paradoxically popular President in the boom period. The standard biographies are by White and Fuess.

HERBERT CLARK HOOVER

was born at West Branch, Iowa, an August 10, 1874. A Stanford graduate, he worked from 1895 to 1913 as a mining engineer and consultant in North America, Europe, Asia, Africa, and Australia. In 1899 he married Lou Henry. During the First World War he served with distinction as chairman of the American Relief Committee in London, as chairman of the Commission for Relief in Belgium and as United States Food Administrator. His political affiliations were still sufficiently indeterminate for him to be mentioned as a possibility for both Republican and Democratic nominations in 1920; but after the election he served both Harding and Coolidge as Secretary of Commerce.

In the election of 1928 Hoover received 444 electoral votes to 87 for Alfred E. Smith, the Democratic candidate. He soon faced the worst depression in the nation's history; but his attacks upon it were hampered by his devotion to the theory that the forces which brought the crisis would soon bring the revival, and then by his belief that in too many areas the federal government had no power to act. In a succession of vetoes he struck down measures proposing a national employment system or national relief; he reduced income tax rates; and only at the end of his term did he yield to popular pressure and set up agencies such as the Reconstruction Finance Corporation to make emergency loans to assist business.

After his 1932 defeat, Hoover returned to private business. In 1946, President Truman charged him with various world food missions; and from 1947 to 1949 and again from 1953 to 1955, he was head of the Commission on Organization of the Executive Branch of the Government.

FRANKLIN DELANO ROOSEVELT

was born in Hyde Park, New York, on January 30, 1882. A Harvard graduate, he attended Columbia Law School and was admitted to the New York bar. In 1910 he was elected to the New York state senate as a Democrat. Re-elected in 1912, he was appointed Assistant Secretary of the Navy by Woodrow Wilson in 1913. In 1920 his radiant personality and his war services resulted in his nomination for Vice President as James M. Cox's running mate. After his defeat, he returned to law practice in New York. In August, 1921, Roosevelt was stricken with infantile paralysis while at Campobello, New Brunswick. After a long and gallant fight against the disease he recovered partial use of his legs. In 1924 and 1928 he led the fight at the Democratic national conventions for the nomination of Governor Alfred E. Smith of New York; and in 1928 Roosevelt was himself induced to run for governor of New York. He was elected and was re-elected in 1930.

In 1932 Roosevelt received the Democratic nomination for President and immediately launched a campaign which brought new spirit to a weary and discouraged nation. He won the election over Herbert Hoover by a margin of 472 to 59 in the electoral college. His first term was characterized by an unfolding of the New Deal program, with greater benefits for labor, the farmers, and the unemployed, and the progressive estrangement of most of the business community.

At an early stage Roosevelt became aware of the menace to world peace involved in the existence of totalitarian fascism, and from 1937 on he tried to focus public attention on the trend of events in Europe and Asia. As a result he was widely denounced as a warmonger. He was re-elected in 1936 over Alfred M. Landon by the overwhelming electoral margin of 523 to 8; and the gathering international crisis caused him to decide to run again in 1940. He defeated Wendell L. Willkie by a vote of 449 to 82.

Roosevelt's program to bring maximum aid to Britain and, after June, 1941, to Russia was opposed, until the Japanese attack on Pearl Harbor restored national unity. During the war Roosevelt shelved the New Deal in the interests of conciliating the business community, both in order to get full production during the war and to prepare the way for a united

acceptance of the peace settlements after the war. A series of conferences with Winston Churchill and Joseph Stalin laid down the bases for the postwar world. In 1944 he was elected to a fourth term, running against Governor Thomas E. Dewey of New York.

On April 12, 1945, Roosevelt died at Warm Springs, Georgia, shortly after his return from the Yalta Conference. His wife, Anna Eleanor Roosevelt, whom he married in 1905, is a woman of great ability who made significant contributions to her husband's policies. No President has been faced with so many staggering responsibilities, both at home and abroad.

HARRY S. TRUMAN

was born on a farm near Lamar, Missouri, on May 8, 1884. During the First World War he served in France with the 129th Field Artillery. He married Bess Wallace in 1919. After engaging briefly and unsuccessfully in the haberdashery business in Kansas City, Truman entered local politics. Under the sponsorship of Thomas Pendergast, Democratic boss of Missouri, he held a number of local offices, preserving his personal honesty in the midst of a notoriously corrupt political machine. In 1934 he was elected to the Senate and was re-elected in 1940. During his first term he was a loyal but quiet supporter of the New Deal; but in the course of his second term, an appointment as head of a Senate committee to investigate war production brought out his special qualities of honesty, common sense, and hard work, and he won widespread respect.

Elected Vice President in 1944, Truman became President upon Roosevelt's death in 1945 and immediately had to face complex postwar problems, both domestic and foreign. His first attempts did not meet with marked success, and the Republicans won control of Congress in 1946. The next two years were distinguished by the Truman Doctrine, the Marshall Plan, and civil-rights proposals; and his general record, highlighted by a vigorous Fair Deal campaign, brought about his unexpected and impressive re-election in 1948.

Truman's second term was primarily concerned with the Cold War with the Soviet Union, the implementing of the North Atlantic Pact, the United Nations police action in Korea, and the vast rearmament program with its accompanying problems of economic stabilization.

On Mar. 29, 1952, Truman announced that he would not run again for the Presidency. He campaigned actively for Adlai E. Stevenson. After Eisenhower's inauguration, Truman returned to his Independence, Missouri, home to write his memoirs. He further busied himself with the organization of the Harry S. Truman Library in Independence, Missouri.

DWIGHT DAVID EISENHOWER

was born in Denison, Texas, on October 14, 1890. His ancestors lived in Germany, and emigrated to America, settling in Pennsylvania, early in the 18th century. His father, David, had a general store in Hope, Kansas, which failed. After a brief time in Texas, the family moved to Abilene, Kansas.

After graduating from Abilene High School in 1909, Dwight Eisenhower did odd jobs for almost two years. He won an appointment to the Naval Academy at Annapolis, but it turned out that he was too old for admittance. Then he received an appointment in 1910 to West Point. He was graduated a 2nd Lieutenant in 1915.

He did not see service in World War I, having been assigned to the 19th Infantry at Fort Sam Houston, Texas. There he met Mamie Geneva Doud, whom he married in Denver on July 1, 1916. Their first son died in infancy. Their second son is Major John Sheldon Doud Eisenhower.

A paper he wrote about 1930 attracted the attention of General Douglas MacArthur, then Chief of Staff, who asked that Eisenhower be assigned to his office. When MacArthur went to the Philippines as military adviser in 1935, Eisenhower accompanied him and remained with him until 1939.

General George C. Marshall brought him into the War Department General Staff and, in 1942, put him in command of the

Allied invasion of North Africa. In 1944, Eisenhower was made Supreme Allied Commander of the invasion of Europe.

After the war, Eisenhower served as Army Chief of Staff from November, 1945, until February, 1948, when he was appointed president of Columbia University.

In December, 1950, President Truman recalled Eisenhower to active duty to command the North Atlantic Treaty Organization forces in Europe. He held this post until the end of May, 1952.

In the Republican Convention of July, 1952, in Chicago, Eisenhower won the Presidential nomination on the first ballot in a close race with Senator Robert A. Taft of Ohio. In November, he won the election, defeating Adlai E. Stevenson by an electoral vote of 442 to 89.

Eisenhower's Administration from 1952 to the fall of 1958 was marked by alternating periods of tension and relaxation in foreign affairs. On the home front, following a middle-of-the-road line, he did little to abandon the social policies of the New Deal-Fair Deal, but he sought wider state participation and the assumption of a larger responsibility by business for investment and employment. His illnesses in Sept., 1955, and June, 1956, raised the question of his availability for a second term. He announced his candidacy on July 10, and was renominated. He was re-elected by a total of 457 electoral votes to 73 for Adlai E. Stevenson.

Also see, *Headline History* for 1957 and 1958 and for later events see *News Items* for 1959.

How to Number the Presidents

Did Eisenhower take office as the 33rd President or as the 34th?

The difficulty started with Grover Cleveland. He became our 22nd President back in 1885. Then came Benjamin Harrison, who was obviously the 23rd President, serving from 1889-93. At this point, Cleveland returned to the White House for a second (but nonconsecutive) term.

Cleveland was still the same man who had been our 22nd President. But in his later term, it would look silly—some folks thought—to continue to call him our 22nd President. That would make the 22nd President follow the 23rd. Numbers should go in order—so ran the argument—and Cleveland should therefore be designated both as the 22nd President in his first term and as the 24th in his second term.

The people who argued the other way found an eloquent spokesman in John Kieran. He said: "Write down the names of all the Presidents, and you will only get 33. If you write Cleveland twice, you'll get 34—but in that case you've got

to write Franklin D. Roosevelt's name four times. Until they prove to me that Grover Cleveland was two men, Eisenhower can't be the 34th President."

The *Congressional Directory*, which must be considered the official final authority, grappled with the problem of numbering the Presidents. Until recent years, it has followed John Kieran's theory.

After the election of President Truman, and before the election of President Eisenhower, the *Congressional Directory* changed its official mind. In the 1956 *Congressional Directory*, Truman is the 33rd President, and Eisenhower is listed as the 34th. (Cleveland has two numbers—22nd and 24th.)

Since 1957, the *Directory* has listed the Presidents without numbering them—we don't know why. Although we are listing the Presidents on the basis of the *Congressional Directory* of 1956 we can't help thinking of John Kieran's remark: "Put the busts of all the Presidents in a row and count them and you will get 33, and only 33."

U. S. Cabinet Members with Dates of Appointment

Although the Constitution made no provision for a President's advisory group, the heads of the three executive departments (State, Treasury and War) and the Attorney General were organized by Washington into such a group; and by about 1793, the name "Cabinet" was applied to it. With the exception of the Attorney General up to 1870 and the Postmaster General from 1829-72, Cabinet members have been heads of executive departments, although other government officials may be called to sit in whenever necessary.

A Cabinet member is appointed by the President, subject to the confirmation of the Senate; and as his term is not fixed, he may be replaced at any time by the

President. At a change in Administration, it is customary for him to tender his resignation, but he remains in office until a successor is appointed.

The table of Cabinet members lists only those members who actually served after being duly commissioned. It does not include ad-interim appointments or cases where the appointee declined the office after appointment.

The dates shown are those of appointment. "Contd" indicates that the term continued from the previous Administration for a substantial amount of time. Those cases where the term continued for only a few days, until a new appointment could be made, are not indicated.

WASHINGTON		Attorney General		Secretary of the Navy		Secretary of the Navy	
Secretary of State		Levi Lincoln.....	1801	B. W. Crowninshield..	Contd	John Branch.....	1829
Thomas Jefferson.....	1789	Robert Smith.....	1805	Smith Thompson.....	1818	Levi Woodbury.....	1831
Edmund Randolph.....	1794	John Breckinridge....	1805	Samuel L. Southard....	1823	Mahlon Dickerson....	1834
Timothy Pickering....	1795	Caesar A. Rodney.....	1807				
Secretary of the Treasury		Secretary of the Navy		J. Q. ADAMS		VAN BUREN	
Alexander Hamilton....	1789	Benjamin Stoddert....	Contd	Secretary of State		Secretary of State	
Oliver Wolcott, Jr.....	1795	Robert Smith.....	1801	Henry Clay.....	1825	John Forsyth.....	Contd
Secretary of War		MADISON		Secretary of the Treasury		Secretary of the Treasury	
Henry Knox.....	1789	Secretary of State		Richard Rush.....	1825	Levi Woodbury.....	Contd
Timothy Pickering.....	1795	Robert Smith.....	1809	Secretary of War		Secretary of War	
James McHenry.....	1796	James Monroe.....	1811	James Barbour.....	1825	Joel R. Poinsett.....	1837
Attorney General		Secretary of the Treasury		Peter B. Porter.....	1828	Attorney General	
Edmund Randolph.....	1789	Albert Gallatin.....	Contd	Attorney General		Attorney General	
William Bradford.....	1794	George W. Campbell....	1814	William Wirt.....	Contd	Benjamin F. Butler...	Contd
Charles Lee.....	1795	Alexander J. Dallas....	1814	Secretary of the Navy		Felix Grundy.....	1838
J. ADAMS		William H. Crawford....	1816	Samuel L. Southard..	Contd	Henry D. Gilpin.....	1840
Secretary of State		Secretary of War		JACKSON		Postmaster General	
Timothy Pickering....	Contd	William Eustis.....	1809	Secretary of State		Amos Kendall.....	Contd
John Marshall.....	1800	John Armstrong.....	1813	Martin Van Buren.....	1829	John M. Niles.....	1840
Secretary of the Treasury		James Monroe.....	1814	Edward Livingston....	1831	Secretary of the Navy	
Oliver Wolcott, Jr....	Contd	William H. Crawford....	1815	Louis McLane.....	1833	Mahlon Dickerson....	Contd
Samuel Dexter.....	1801	Attorney General		John Forsyth.....	1834	James K. Paulding....	1838
Secretary of War		Caesar A. Rodney.....	Contd	Secretary of the Treasury		W. HARRISON	
James McHenry.....	Contd	William Pinckney.....	1811	Samuel D. Ingham.....	1829	Secretary of State	
Samuel Dexter.....	1800	Richard Rush.....	1814	Louis McLane.....	1831	Daniel Webster.....	1841
Attorney General		Secretary of the Navy		William J. Duane.....	1833	Secretary of the Treasury	
Charles Lee.....	Contd	Paul Hamilton.....	1809	Roger B. Taney.....	1833	Thomas Ewing.....	1841
Secretary of the Navy		William Jones.....	1813	Levi Woodbury.....	1834	Secretary of War	
Benjamin Stoddert....	1798	B. W. Crowninshield..	1814	Secretary of War		Attorney General	
JEFFERSON		MONROE		John H. Eaton.....	1829	John J. Crittenden....	1841
Secretary of State		Secretary of State		Lewis Cass.....	1831	Postmaster General	
James Madison.....	1801	John Quincy Adams....	1817	Attorney General		Francis Granger.....	1841
Secretary of the Treasury		Secretary of the Treasury		John M. Berrien.....	1829	Secretary of the Navy	
Samuel Dexter.....	Contd	William H. Crawford....	Contd	Roger B. Taney.....	1831	George E. Badger.....	1841
Albert Gallatin.....	1801	Secretary of War		Benjamin F. Butler....	1833		
Secretary of War		John C. Calhoun.....	1817	Postmaster General ¹			
Henry Dearborn.....	1801	Attorney General		William T. Barry.....	1829		
		Richard Rush.....	Contd	Amos Kendall.....	1835		
		William Wirt.....	1817				

TYLER

Secretary of State

Daniel Webster..... Contd
Abel P. Upshur..... 1843
John C. Calhoun..... 1844

Secretary of the Treasury

Thomas Ewing..... Contd
Walter Forward..... 1841
John C. Spencer..... 1843
George M. Bibb..... 1844

Secretary of War

John Bell..... Contd
John C. Spencer..... 1841
James M. Porter..... 1843
William Wilkins..... 1844

Attorney General

John J. Crittenden..... Contd
Hugh S. Legaré..... 1841
John Nelson..... 1843

Postmaster General

Francis Granger..... Contd
Charles A. Wickliffe..... 1841

Secretary of the Navy

George E. Badger..... Contd
Abel P. Upshur..... 1841
David Henshaw..... 1843
Thomas W. Gilmer..... 1844
John Y. Mason..... 1844

POLE

Secretary of State

James Buchanan..... 1845

Secretary of the Treasury

Robert J. Walker..... 1845

Secretary of War

William L. Marcy..... 1845

Attorney General

John Y. Mason..... 1845
Nathan Clifford..... 1846
Isaac Toucey..... 1848

Postmaster General

Cave Johnson..... 1845

Secretary of the Navy

George Bancroft..... 1845
John Y. Mason..... 1846

TAYLOR

Secretary of State

John M. Clayton..... 1849

Secretary of the Treasury

William M. Meredith..... 1849

Secretary of War

George W. Crawford..... 1849

Attorney General

Reverdy Johnson..... 1849

Postmaster General

Jacob Collamer..... 1849

Secretary of the Navy

William B. Preston..... 1849

Secretary of the Interior

Thomas Ewing..... 1849

FILLMORE

Secretary of State

Daniel Webster..... 1850
Edward Everett..... 1852

Secretary of the Treasury

Thomas Corwin..... 1850

Secretary of War

Charles M. Conrad..... 1850

Attorney General

John J. Crittenden..... 1850

Postmaster General

Nathan K. Hall..... 1850
Samuel D. Hubbard..... 1852

Secretary of the Navy

William A. Graham..... 1850
John P. Kennedy..... 1852

Secretary of the Interior

Thos. M. T. McKennan..... 1850
Alex. H. H. Stuart..... 1850

PIERCE

Secretary of State

William L. Marcy..... 1853

Secretary of the Treasury

James Guthrie..... 1853

Secretary of War

Jefferson Davis..... 1853

Attorney General

Caleb Cushing..... 1853

Postmaster General

James Campbell..... 1853

Secretary of the Navy

James C. Dobbin..... 1853

Secretary of the Interior

Robert McClelland..... 1853

BUCHANAN

Secretary of State

Lewis Cass..... 1857
Jeremiah S. Black..... 1850

Secretary of the Treasury

Howell Cobb..... 1857
Philip F. Thomas..... 1850
John A. Dix..... 1851

Secretary of War

John B. Floyd..... 1857
Joseph Holt..... 1851

Attorney General

Jeremiah S. Black..... 1857
Edwin M. Stanton..... 1850

Postmaster General

Aaron V. Brown..... 1857
Joseph Holt..... 1859
Horatio King..... 1851

Secretary of the Navy

Isaac Toucey..... 1857

Secretary of the Interior

Jacob Thompson..... 1857

LINCOLN

Secretary of State

William H. Seward..... 1851

Secretary of the Treasury

Salmon P. Chase..... 1851
William P. Fessenden..... 1854
Hugh McCulloch..... 1855

Secretary of War

Simon Cameron..... 1851
Edwin M. Stanton..... 1852

Attorney General

Edward Bates..... 1851
James Speed..... 1854

Postmaster General

Montgomery Blair..... 1851
William Dennison..... 1854

Secretary of the Navy

Gideon Welles..... 1851

Secretary of the Interior

Caleb B. Smith..... 1851
John P. Usher..... 1853

JOHNSON

Secretary of State

William H. Seward..... Contd

Secretary of the Treasury

Hugh McCulloch..... Contd

Secretary of War

Edwin M. Stanton..... Contd
John M. Schofield..... 1858

Attorney General

James Speed..... Contd
Henry Stanbery..... 1856
William M. Everts..... 1858

Postmaster General

William Dennison..... Contd
Alexander W. Randall..... 1856

Secretary of the Navy

Gideon Welles..... Contd

Secretary of the Interior

John P. Usher..... Contd
James Harlan..... 1855
Orville H. Browning..... 1856

GRANT

Secretary of State

Elihu B. Washburne..... 1859
Hamilton Fish..... 1859

Secretary of the Treasury

George S. Boutwell..... 1859
William A. Richardson..... 1873
Benjamin H. Bristow..... 1874
Lot M. Morrill..... 1875

Secretary of War

John A. Rawlins..... 1859
William T. Sherman..... 1859
William W. Belknap..... 1859
Alphonso Taft..... 1875
James D. Cameron..... 1875

Attorney General

Ebenezer R. Hoar..... 1859
Amos T. Akerman..... 1870
George H. Williams..... 1871
Edwards Pierrepont..... 1875
Alphonso Taft..... 1875

Postmaster General

John A. J. Creswell..... 1859
James W. Marshall..... 1874
Marshall Jewell..... 1874
James N. Tyner..... 1875

Secretary of the Navy

Adolph E. Borie..... 1859
George M. Robeson..... 1859

Secretary of the Interior

Jacob D. Cox..... 1859
Columbus Delano..... 1870
Zachariah Chandler..... 1875

HAYES

Secretary of State

William M. Everts..... 1877

Secretary of the Treasury

John Sherman..... 1877

Secretary of War

George W. McCrary..... 1877
Alexander Ramsey..... 1879

Attorney General

Charles Devens..... 1877

Postmaster General

David M. Key..... 1877
Horace Maynard..... 1880

Secretary of the Navy

Richard W. Thompson..... 1877
Nathan Goff, Jr..... 1881

Secretary of the Interior

Carl Schurz..... 1877

GARFIELD

Secretary of State

James G. Blaine..... 1881

Secretary of the Treasury

William Windom..... 1881

Secretary of War

Robert T. Lincoln..... 1881

Attorney General

Wayne MacVeagh..... 1881

Postmaster General

Thomas L. James..... 1881

Secretary of the Navy

William H. Hunt..... 1881

Secretary of the Interior

Samuel J. Kirkwood..... 1881

ARTHUR

Secretary of State

James G. Blaine..... Contd
F. T. Frélinghuysen..... 1881

Secretary of the Treasury

William Windom..... Contd
Charles J. Folger..... 1881
Walter Q. Gresham..... 1884
Hugh McCulloch..... 1884

Secretary of War

Robert T. Lincoln..... Contd

Attorney General

Wayne MacVeagh..... Contd
Benjamin H. Brewster..... 1881

Postmaster General

Thomas L. James..... Contd
Timothy O. Howe..... 1881
Walter Q. Gresham..... 1883
Frank Hatton..... 1884

Secretary of the Navy

William H. Hunt..... Contd
William E. Chandler..... 1882

Secretary of the Interior

Samuel J. Kirkwood..... Contd
Henry M. Teller..... 1882

CLEVELAND

Secretary of State

Thomas F. Bayard..... 1885

Secretary of the Treasury

Daniel Manning..... 1885
Charles S. Fairchild..... 1887

Secretary of War

William C. Endicott..... 1885

Attorney General

Augustus H. Garland..... 1885

Postmaster General

William F. Vilas..... 1885
Don M. Dickinson..... 1888

Secretary of the Navy

William C. Whitney..... 1885

Secretary of the Interior

Lucius Q. C. Lamar..... 1885
William F. Vilas..... 1888

Secretary of Agriculture

Norman J. Colman..... 1889

HARRISON

Secretary of State

James G. Blaine..... 1889
John W. Foster..... 1892

Secretary of the Treasury

William Windom..... 1889
Charles Foster..... 1891

Secretary of War

Redfield Proctor..... 1889
Stephen B. Elkins..... 1891

Attorney General

William H. H. Miller..... 1889

Postmaster General

John Wanamaker..... 1889

Secretary of the Navy

Benjamin F. Tracy..... 1889

Secretary of the Interior

John W. Noble..... 1889

Secretary of Agriculture

Jeremiah M. Rusk..... 1889

CLEVELAND

Secretary of State

Walter Q. Gresham..... 1893
Richard Olney..... 1895

Secretary of the Treasury

John G. Carlisle..... 1893

Secretary of War

Daniel S. Lamont..... 1893

Attorney General

Richard Olney..... 1893
Judson Harmon..... 1895

Postmaster General

Wilson S. Bissell..... 1893
William L. Wilson..... 1895

Secretary of the Navy

Hilary A. Herbert..... 1893

Secretary of the Interior

Hoke Smith..... 1893
David R. Francis..... 1896

Secretary of Agriculture

Julius Sterling Morton..... 1893

McKINLEY

Secretary of State

John Sherman..... 1897
William R. Day..... 1898
John Hay..... 1898

Secretary of the Treasury

Lyman J. Gage..... 1897

Secretary of War

Russell A. Alger..... 1897
Elihu Root..... 1899

Attorney General

Joseph McKenna..... 1897
John W. Griggs..... 1898
Philander C. Knox..... 1901

Postmaster General

James A. Gary..... 1897
Charles E. Smith..... 1898

Secretary of the Navy

John D. Long..... 1897

Secretary of the Interior

Cornelius N. Bliss..... 1897
Ethan A. Hitchcock..... 1898

Secretary of Agriculture

James Wilson..... 1897

T. ROOSEVELT

Secretary of State

John Hay..... Contd
Elihu Root..... 1905
Robert Bacon..... 1909

Secretary of the Treasury

Lyman J. Gage..... Contd
Leslie M. Shaw..... 1902
George B. Cortelyou..... 1907

Secretary of War

Elihu Root..... Contd
William H. Taft..... 1904
Luke E. Wright..... 1908

Attorney General

Philander C. Knox..... Contd
William H. Moody..... 1904
Charles J. Bonaparte..... 1906

Postmaster General

Charles E. Smith..... Contd
Henry C. Payne..... 1902
Robert J. Wynne..... 1904
George B. Cortelyou..... 1905
George von L. Meyer..... 1907

Secretary of the Navy

John D. Long..... Contd
William H. Moody..... 1902
Paul Morton..... 1904
Charles J. Bonaparte..... 1905
Victor H. Metcalf..... 1906
Truman H. Newberry..... 1908

Secretary of the Interior

Ethan A. Hitchcock..... Contd
James R. Garfield..... 1907

Secretary of Agriculture

James Wilson..... Contd

Secretary of Commerce
and Labor

George B. Cortelyou..... 1903
Victor H. Metcalf..... 1904
Oscar S. Straus..... 1906

TAFT

Secretary of State

Philander C. Knox..... 1909

Secretary of the Treasury

Franklin MacVeagh..... 1909

Secretary of War

Jacob M. Dickinson..... 1909
Henry L. Stimson..... 1911

Attorney General

George W. Wickersham..... 1909

Postmaster General

Frank H. Hitchcock..... 1909

Secretary of the Navy

George von L. Meyer..... 1909

Secretary of the Interior

Richard A. Ballinger..... 1909
Walter L. Fisher..... 1911

Secretary of Agriculture

James Wilson..... Contd

Secretary of Commerce
and Labor

Charles Nagel..... 1909

WILSON

Secretary of State

William J. Bryan..... 1913
Robert Lansing..... 1915
Bainbridge Colby..... 1920

Secretary of the Treasury

William G. McAdoo..... 1913
Carter Glass..... 1918
David F. Houston..... 1920

Secretary of War

Lindley M. Garrison..... 1913
Newton D. Baker..... 1916

Attorney General

James C. McReynolds..... 1913
Thomas W. Gregory..... 1914
A. Mitchell Palmer..... 1919

Postmaster General

Albert S. Burleson..... 1913

Secretary of the Navy

Josephus Daniels..... 1913

Secretary of the Interior

Franklin K. Lane..... 1913
John B. Payne..... 1920

Secretary of Agriculture

David F. Houston..... 1913
Edwin T. Meredith..... 1920

Secretary of Commerce

William C. Redfield..... 1913
Joshua W. Alexander..... 1919

Secretary of Labor

William B. Wilson..... 1913

HARDING

Secretary of State

Charles E. Hughes..... 1921

Secretary of the Treasury

Andrew W. Mellon..... 1921

Secretary of War

John W. Weeks..... 1921

Attorney General

Harry M. Daugherty..... 1921

Postmaster General

Will H. Hays..... 1921
Hubert Work..... 1922
Harry S. New..... 1923

Secretary of the Navy

Edwin Denby..... 1921

Secretary of the Interior

Albert B. Fall..... 1921
Hubert Work..... 1923

Secretary of Agriculture

Henry C. Wallace..... 1921

Secretary of Commerce

Herbert Hoover..... 1921

Secretary of Labor

James J. Davis..... 1921

COOLIDGE

Secretary of State

Charles E. Hughes..... Contd
Frank B. Kellogg..... 1925

Secretary of the Treasury

Andrew W. Mellon..... Contd

Secretary of War

John W. Weeks..... Contd
Dwight F. Davis..... 1925

Attorney General

Harry M. Daugherty..... Contd
Harlan F. Stone..... 1924
John G. Sargent..... 1925

Postmaster General

Harry S. New..... Contd

Secretary of the Navy

Edwin Denby..... Contd
Curtis D. Wilbur..... 1924

Secretary of the Interior

Hubert Work..... Contd
Roy O. West..... 1928

Secretary of Agriculture

Henry C. Wallace..... Contd
Howard M. Gore..... 1924
William M. Jardine..... 1925

Secretary of Commerce

Herbert Hoover..... Contd
William F. Whiting..... 1928

Secretary of Labor

James J. Davis..... Contd

HOOVER

Secretary of State

Frank B. Kellogg..... Contd
Henry L. Stimson..... 1929

Secretary of the Treasury

Andrew W. Mellon..... Contd
Ogden L. Mills..... 1932

Secretary of War

James W. Good..... 1929
Patrick J. Hurley..... 1929

Attorney General

William D. Mitchell..... 1929

Postmaster General

Walter F. Brown..... 1929

Secretary of the Navy

Charles F. Adams..... 1929

Secretary of the Interior

Ray Lyman Wilbur..... 1929

Secretary of Agriculture

Arthur M. Hyde..... 1929

Secretary of Commerce

Robert P. Lamont..... 1929
Roy D. Chapin..... 1932

Secretary of Labor

James J. Davis..... Contd
William N. Doak..... 1930

F. ROOSEVELT

Secretary of State

Cordell Hull..... 1933
E. R. Stettinius, Jr..... 1944

Secretary of the Treasury

William H. Woodin..... 1933
Henry Morgenthau, Jr..... 1934

Secretary of War

George H. Dern..... 1933
Harry H. Woodring..... 1936
Henry L. Stimson..... 1940

Attorney General

Homer S. Cummings..... 1933
Frank Murphy..... 1939
Robert H. Jackson..... 1940
Francis Biddle..... 1941

Postmaster General

James A. Farley..... 1933
Frank C. Walker..... 1940

Secretary of the Navy

Claude A. Swanson..... 1933
Charles Edison..... 1940
Frank Knox..... 1940
James Forrestal..... 1944

Secretary of the Interior

Harold L. Ickes..... 1933

Secretary of Agriculture

Henry A. Wallace..... 1933
Claude R. Wickard..... 1940

Secretary of Commerce

Daniel C. Roper..... 1933
Harry L. Hopkins..... 1938
Jesse H. Jones..... 1940
Henry A. Wallace..... 1945

Secretary of Labor

Frances Perkins..... 1933

TRUMAN

Secretary of State

E. R. Stettinius, Jr..... Contd
James F. Byrnes..... 1945
George C. Marshall..... 1947
Dean Acheson..... 1949

Secretary of the Treasury

Henry Morgenthau, Jr. Contd
Fred M. Vinson..... 1945
John W. Snyder..... 1946

Secretary of Defense

James Forrestal..... 1947
Louis A. Johnson..... 1949
George C. Marshall..... 1950
Robert A. Lovett..... 1951

Attorney General

Francis Biddle..... Contd
Tom C. Clark..... 1945
J. Howard McGrath..... 1949
James P. McGranery..... 1952

Postmaster General

Frank C. Walker..... Contd
Robert E. Hannegan..... 1945
Jesse M. Donaldson..... 1947

Secretary of the Interior

Harold L. Ickes..... Contd
Julius C. Krug..... 1946
Oscar L. Chapman..... 1949

Secretary of Agriculture

Claude R. Wickard..... Contd
Clinton P. Anderson..... 1945
Charles F. Brannan..... 1948

Secretary of Commerce

Henry A. Wallace..... Contd
W. Averell Harriman..... 1946
Charles Sawyer..... 1948

Secretary of Labor

Frances Perkins..... Contd
Lewis B. Schwellenbach..... 1945
Maurice J. Tobin..... 1948

Secretary of War¹

Henry L. Stimson..... Contd
Robert P. Patterson..... 1945
Kenneth C. Royall..... 1947

Secretary of the Navy²

James Forrestal..... Contd

EISENHOWER

Secretary of State

John Foster Dulles..... 1953
Christian A. Herter..... 1959

Secretary of the Treasury

George M. Humphrey..... 1953
Robert B. Anderson..... 1957

Secretary of Defense

Charles E. Wilson..... 1953
Neil H. McElroy..... 1957

Attorney General

Herbert Brownell, Jr..... 1953
William P. Rogers..... 1958

Postmaster General

Arthur Summerfield..... 1953

Secretary of the Interior

Douglas McKay..... 1953
Frederick A. Seaton..... 1956

Secretary of Agriculture

Ezra Taft Benson..... 1953

Secretary of Commerce

Sinclair Weeks..... 1953
Lewis L. Strauss³..... 1958
Frederick H. Mueller..... 1959

Secretary of Labor

Martin P. Durkin..... 1953
James P. Mitchell..... 1953

Secretary of Health,
Education and Welfare

Oveta Culp Hobby..... 1953
Marion B. Folsom..... 1955
Arthur S. Flemming..... 1958

The Confederate States of America, 1861-65

President—Jefferson Davis; born, Christian (now Todd) Co., Ky., June 3, 1808; died, Dec. 6, 1889. **Vice President**—Alexander H. Stephens.

CABINET*

Secretary of State

Robert Toombs..... 1861
Robert M. T. Hunter..... 1861
Judah P. Benjamin..... 1862

Secretary of Treasury

Christopher Memminger..... 1861
George A. Trenholm..... 1864

Secretary of War

Leroy P. Walker..... 1861
Judah P. Benjamin..... 1861
George W. Randolph..... 1862
James A. Seddon..... 1862
John C. Breckinridge..... 1865

Secretary of Navy

Stephen R. Mallory..... 1861

Postmaster General

Henry T. Ellett..... 1861
John H. Reagan..... 1861

Attorney General

Judah P. Benjamin..... 1861
Thomas Bragg..... 1861
Thomas N. Watts..... 1862
George Davis..... 1864

* Dates are those of appointment.

¹ The Postmaster General did not become a Cabinet member until 1829. Earlier Postmasters General were: Samuel Osgood (1789), Timothy Pickens (1791), Joseph Habersham (1795), Gideon Granger (1801), Return J. Meigs, Jr. (1814) and John McLean (1823). ² On July 26, 1947, the Departments of War and of the Navy were incorporated into the Department of Defense. ³ Not confirmed by the Senate.

Executive Departments and Agencies

Source: U. S. Government Organization Manual.

(Unless otherwise indicated, addresses shown are in Washington, D.C.; officials listed are as of Sept. 1959.)

Executive Office of the President

THE WHITE HOUSE OFFICE

1600 Pennsylvania Ave., NW.

The Assistant to the President: Wilton B. Persons.

The Deputy Assistant to the President: Gerald D. Morgan.

Secretary to the President: Thomas E. Stephens.

Press Secretary to the President: James C. Hagerty.

Special Counsel to the President: David W. Kendall.

Special Assistant to the President for National Security Affairs: Gordon Gray.

Activities: Serves President in performance of activities incident to his office.

BUREAU OF THE BUDGET

Executive Office Bldg.

Established: June 10, 1921.

Director: Maurice H. Stans.

Activities: Assists President in preparing budget and formulating fiscal program; supervises administration of budget; coordinates advice on proposed legislation; plans improvements in statistical services; keeps President informed of progress of activities by government agencies so that Congressional appropriations are spent most economically.

NATIONAL SECURITY COUNCIL (NSC)

Executive Office Bldg.

Members: 5. *Established:* July 26, 1947.

Chairman: Dwight D. Eisenhower, President of the U. S.

Other members: Richard M. Nixon, Vice President of the U. S.; Christian A. Herter, Secretary of State; Neil H. McElroy, Secretary of Defense; Leo A. Hoegh, Director of Office of Civil and Defense Mobilization.

Director of Central Intelligence Agency: Allen W. Dulles.

Chairman of Operations Coordinating Board: Karl G. Harr, Jr. (acting).

Activities: Assesses and appraises objectives, commitments and risks of U. S. in relation to our actual and potential military power in interests of national security. Central Intelligence Agency advises NSC on all intelligence matters. Operations Coordinating Board provides for integrated implementation of national security policies.

COUNCIL OF ECONOMIC ADVISERS (CEA)

Executive Office Bldg.

Members: 3. *Established:* Feb. 20, 1946.

Chairman: Raymond J. Saulnier.

Other members: Karl Brandt, Henry C. Wallich.

Activities: Assists President in preparation of economic reports to Congress;

studies economic trends; appraises government activities on nation's economy; recommends economic policies.

NATIONAL AERONAUTICS AND SPACE COUNCIL

1520 H St., NW.

Members: 9. *Established:* 1958.

Chairman: Dwight D. Eisenhower, President of the U. S.

Other members: Christian A. Herter, Secretary of State; Neil H. McElroy, Secretary of Defense; T. Keith Glennan, Administrator of National Aeronautics and Space Administration; John A. McCone, Chairman of Atomic Energy Commission; Alan T. Waterman; Detlev W. Bronk; William A. M. Burden; John T. Rettaliata.

Activities: Advises President of U. S. regarding policies, plans, programs, and accomplishments of U. S. agencies engaged in aeronautical and space activities.

OFFICE OF CIVIL AND DEFENSE MOBILIZATION (OCMD)

Executive Office Bldg.

Established: July 1, 1958, from merger of Office of Defense Mobilization and Federal Civil Defense Administration.

Director: Leo A. Hoegh.

Activities: Advises President on co-ordination of military, industrial and civilian mobilization.

Executive Departments

DEPARTMENT OF STATE

21st St. & Virginia Ave., NW.

Established: 1781 as Department of Foreign Affairs; reconstituted, 1789, following adoption of Constitution; name changed to Department of State Sept. 15, 1789.

Secretary: Christian A. Herter.

Under Secretary: C. Douglas Dillon.

Activities: Determines government policy in relation to international problems; formulates measures for promoting friendship with other countries; develops policies and programs for U. S. participation in U. N. and other international organizations; conducts correspondence with our representatives abroad and with accredited foreign representatives here.

DEPARTMENT OF THE TREASURY

15th St. & Pennsylvania Ave., NW.

Established: Sept. 2, 1789.

Secretary: Robert B. Anderson.

Under Secretary: Fred C. Scribner, Jr.

Activities: Manages national finances; grants warrants for money drawn from Treasury pursuant to legal appropriations; handles collection of revenue; keeps and renders public accounts; prepares plans for improvement of revenue and for support

of public credit; reports annually to Congress on condition of public finances; controls coinage and printing of money; administers Coast Guard, Bureau of Narcotics, and Secret Service.

DEPARTMENT OF DEFENSE

The Pentagon

Established: July 26, 1947, as National Military Establishment; name changed to Department of Defense on Aug. 10, 1949. Subordinate to Secretary of Defense are Secretaries of Army, Navy, Air Force.

Secretary: Neil H. McElroy.

Deputy Secretary: Thomas S. Gates, Jr.

Secretary of Army: Wilber M. Brucker.

Secretary of Navy: William B. Franke.

Commandant, Marine Corps: Maj. Gen. David M. Shoup (after Jan. 1, 1960).

Secretary of Air Force: James H. Douglas.

*Joint Chiefs of Staff:** Gen. Nathan F. Twining, chairman; Gen. Lyman L. Lemnitzer, Army; Adm. Arleigh A. Burke, Navy; Gen. Thomas D. White, Air Force; Maj. Gen. David M. Shoup, Marine Corps (on Marine Corps matters only).

Activities: Provides for security of U. S. by establishing integrated policies and procedures; co-ordinates and directs the activities of 3 separately administered military departments (Army, Navy, Air Force).

DEPARTMENT OF JUSTICE

Constitution Ave. & 10th St., NW.

Established: Office of Attorney General was created Sept. 24, 1789. Although he was one of original Cabinet members, he was not executive department head until June 22, 1870, when Department of Justice was established.

Attorney General: William P. Rogers.

Deputy Atty. Gen.: Lawrence E. Walsh.

Director of FBI: J. Edgar Hoover.

Activities: Provides means for enforcing Federal laws; investigates and detects violations; represents U. S. in legal matters generally and gives advice and opinions when requested by President or heads of executive departments; directs FBI, Bureau of Prisons, Immigration and Naturalization Service.

POST OFFICE DEPARTMENT

12th St. & Pennsylvania Ave., NW.

Established: Office of Postmaster General and temporary post office system created Sept. 22, 1789. Act of Feb. 20, 1792, made detailed provisions for Post Office Department. Postmaster General became Cabinet member in 1829. Department received executive status June 8, 1872.

Postmaster General: Arthur E. Summerfield.

Deputy Postmaster General: Edson O. Sessions.

Activities: Maintains Postal Service of U. S. and executes all laws relative to it;

* Consisting of chairman and chiefs of each service.

negotiates, subject to approval of President, postal treaties with foreign governments.

DEPARTMENT OF THE INTERIOR

C St. between 18th & 19th Sts., NW.

Established: Mar. 3, 1849.

Secretary: Fred A. Seaton.

Under Secretary: Elmer Bennett.

Activities: Develops and conserves natural resources of U. S. and territories; supervises public business relating to such offices as Bureau of Land Management, Bureau of Reclamation, Geological Survey, Bureau of Indian Affairs, National Park Service, Bureau of Mines, Fish and Wildlife Service, Office of Territories, etc.

DEPARTMENT OF AGRICULTURE

14th St. & Independence Ave., SW.

Established: May 15, 1862. Administered by Commissioner of Agriculture until Feb. 9, 1889, when it was made executive department and office of Secretary was created.

Secretary: Ezra Taft Benson.

Under Secretary: True D. Morse.

Activities: Conducts comprehensive research and educational program relating to agriculture; provides crop reports, commodity standards, meat inspection and other marketing services; administers national forests; aids in flood control; administers price-support and production-adjustment programs; makes loans to farmers.

DEPARTMENT OF COMMERCE

14th St. between Constitution Ave. & E St., NW.

Established: Department of Commerce and Labor was created Feb. 14, 1903. On Mar. 4, 1913, all labor activities were transferred out of Department of Commerce and Labor and it was renamed Department of Commerce.

Secretary: Frederick H. Mueller.

Under Secretary: Philip A. Ray.

Activities: Fosters and develops foreign and domestic commerce of U. S.; maintains Bureau of the Census, Office of Business Economics, Coast and Geodetic Survey, Maritime Administration, Patent Office, Bureau of Public Roads, National Bureau of Standards, Weather Bureau, etc.

DEPARTMENT OF LABOR

14th St. & Constitution Ave., NW.

Established: Bureau of Labor was created in 1884 under Department of the Interior; later became independent department without executive rank. Returned to bureau status in Department of Commerce and Labor, but on Mar. 4, 1913, became independent executive department under its present name.

Secretary: James P. Mitchell.

Under Secretary: James T. O'Connell.

Activities: Promotes welfare of wage earners of U. S., improving their working

conditions and advancing their opportunities for profitable employment; directs collection and collation of statistics concerning labor conditions; promulgates and enforces certain maximum-hour, minimum-wage, child-labor, safety and health standards.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

330 Independence Ave., SW.

Established: Apr. 11, 1953, replacing Federal Security Agency created in 1939.

Secretary: Arthur S. Flemming.

Under Secretary: Bertha S. Adkins.

Activities: Supervises and co-ordinates various organizations within the department. Organizations are: Food and Drug Administration, Office of Education, Office of Vocational Rehabilitation, Public Health Service, St. Elizabeths Hospital, Social Security Administration; also following Federally supported corporations: American Printing House for the Blind, Gallaudet College and Howard University.

Independent Agencies

(Because of space limitations, only agencies of interest to the general public are listed here.)

Executive Department

ATOMIC ENERGY COMMISSION (AEC)

Main office: Germantown, Md.; D.C. office: 1717 H St., NW.

Members: 5. *Established:* Aug. 1, 1946.

Chairman: John A. McCone.

Other members: John F. Floberg, John S. Graham, John H. Williams, (1 vacancy).

Activities: Promotes Federally conducted and private research and development; controls dissemination of information and production, ownership and use of fissionable materials.

CIVIL AERONAUTICS BOARD (CAB)

Universal Bldg.

Members: 5. *Established:* June 30, 1940.

Chairman: James R. Durfee.

Activities: Regulates economic aspects of U. S. air carrier operation; assists in development of international air transportation; promotes safety in civil aviation.

FARM CREDIT ADMINISTRATION (FCA)

South Bldg., Dept. of Agriculture.

Established: July 17, 1916.

Chairman: Earl H. Brockman.

Activities: Supervises and coordinates cooperative credit system for agriculture; provides long- and short-term credit to farmers and their cooperative marketing, purchasing, and business service organizations.

FEDERAL COMMUNICATIONS COMMISSION (FCC)

Post Office Dept. Bldg.

Members: 7. *Established:* 1934.

Chairman: John C. Doerfer.

Activities: Regulates interstate and foreign communications by wire and radio, including amateur radio and TV; regulates operator's licenses; classifies radio stations and prescribes their services; enforces use of radio for safety purposes on U. S. ships.

FEDERAL MEDIATION AND CONCILIATION SERVICE (FMCS)

Department of Labor Bldg.

Established: 1947.

Director: Joseph F. Finnegan.

Activities: Assists in labor-management disputes in industries affecting interstate commerce to reach settlements by mediation or conciliation; promotes better relations between labor and management.

FEDERAL POWER COMMISSION (FPC)

General Accounting Office Bldg., 441 G St., NW.

Members: 5. *Established:* June 23, 1930.

Chairman: Jerome K. Kuykendall.

Activities: Licenses hydroelectric projects on U. S. Government lands or navigable waters; has jurisdiction over interstate commerce involving sale of electric energy and natural gas and companies engaged therein; handles transmission of electric energy and natural gas between U. S. and foreign countries.

FEDERAL RESERVE SYSTEM (FRS), BOARD OF GOVERNORS OF

20th St. & Constitution Ave., NW.

Members: 7. *Established:* Dec. 23, 1913.

Chairman: William McC. Martin, Jr.

Activities: Supervises Federal Reserve banks; influences credit conditions; regulates open-market operations; issues Federal Reserve notes.

FEDERAL TRADE COMMISSION (FTC)

6th St. & Pennsylvania Ave., NW.

Members: 5. *Established:* Sept. 26, 1914.

Chairman: Earl W. Kintner.

Activities: Prevents unfair competition, deceptive practices, false advertising, price discrimination, monopolies.

HOUSING AND HOME FINANCE AGENCY (HHFA)

1626 K St., NW.

Established: July 27, 1947.

Administrator: Norman P. Mason.

Activities: Provides single agency responsible for principal housing programs and functions of Federal government; supervises and co-ordinates activities of Federal National Mortgage Association (FNMA), Federal Housing Administration (FHA), Public Housing Administration (PHA), Voluntary Home Mortgage Credit Program, Urban Renewal Administration, and Community Facilities Administration.

INTERSTATE COMMERCE COMMISSION (ICC)

12th St. & Constitution Ave., NW.

Members: 11. *Established:* Feb. 4, 1887.

Chairman: Kenneth H. Tuggle.

Activities: Regulates railroads, motor carriers, water carriers and freight forwarders as to rates, through-routes, services and bills of lading; authorizes mergers or consolidations; authorizes issue of securities by carriers.

NATIONAL LABOR RELATIONS BOARD (NLRB)

3rd & C Sts., SW.

Members: 5. *Established:* July 5, 1935.

Chairman: Boyd Leedom.

Activities: Prevents unfair labor practices by employers or labor organizations; conducts secret ballots among employees to determine their choice of bargaining representatives.

SECURITIES AND EXCHANGE COMMISSION (SEC)

425 2nd St., NW.

Members: 5. *Established:* June 6, 1934.

Chairman: Edward N. Gadsby.

Activities: Registers and issues regulations for securities and exchanges; registers securities offered for public sale; penalizes violators of regulations subject to appeal to U. S. Court of Appeals.

SELECTIVE SERVICE SYSTEM (SSS)

451 Indiana Ave., NW.

Established: 1948.

Director: Lt. Gen. Lewis B. Hershey.

Activities: Handles registration, examination, classification and selection for induction into armed forces or other disposition of men required to register under Universal Training and Service Act.

SMALL BUSINESS ADMINISTRATION (SBA)

811 Vermont Ave., NW.

Established: July 30, 1953.

Administrator: Wendell B. Barnes.

Activities: Aids and assists the interests of small business firms to insure a fair share of total government contracts; makes loans to small firms and victims of flood and disaster.

TENNESSEE VALLEY AUTHORITY (TVA)

New Sprankle Bldg., Knoxville, Tenn. (Wash. office: Woodward Bldg., 15th & H Sts., NW.)

Members: 3. *Established:* May 18, 1933.

Chairman: Herbert D. Vogel.

Other members: Arnold R. Jones, Brooks Hays.

Activities: Provides navigable channel and flood control of Tennessee River and some of its larger tributaries; disposes of surplus electric power; improves, increases and cheapens fertilizer production.

U. S. CIVIL SERVICE COMMISSION (CSC)

8th & F Sts., NW.

Members: 3. *Established:* Jan. 16, 1883.

Chairman: Roger W. Jones.

Activities: Provides examinations to test fitness of applicants for positions in competitive service; provides personnel in response to requests from appointing officers; investigates applicants for national security purposes; classifies positions; maintains service records.

U. S. INFORMATION AGENCY (USIA)

1776 Pennsylvania Ave., NW.

Established: Aug. 1, 1953.

Director: George V. Allen.

Activities: Directs information to foreign peoples, such as explanation and interpretation of policies of U. S. Government, and delineation of U. S. life and culture.

U. S. TARIFF COMMISSION

E St. between 7th & 8th Sts., NW.

Members: 6. *Established:* Sept. 8, 1916.

Chairman: Joseph E. Talbot.

Activities: Investigates customs laws, unfair competition and foreign and domestic manufacturing costs; advises the President on duty rates.

VETERANS' ADMINISTRATION (VA)

Vermont Ave. between H & I Sts., NW.

Established: July 21, 1930.

Administrator: Sumner G. Whittier.

Activities: Administers laws authorizing benefits for veterans and for their dependents or beneficiaries. Included are hospitalization, pensions, insurance, loans, education, etc.

Legislative Department**GENERAL ACCOUNTING OFFICE (GAO)**

441 G St., NW.

Established: June 10, 1921.

Comptroller General of the U. S.: Joseph Campbell.

Activities: Performs independent audits of government financial transactions to provide basis for settlement of accounts and to evaluate management of financial affairs by agencies; exercises power of disallowance based on Comptroller General's settlement of accounts and claims; issues reports to Congress on its findings.

LIBRARY OF CONGRESS

First St., SE, between East Capitol St. and Independence Ave.

Established: Apr. 24, 1800.

Librarian of Congress: L. Quincy Mumford.

Activities: Intended primarily for service of Congress, it has come to include entire governmental establishment and public at large. (For further description, consult index.)

Diplomatic Personnel To and From the U. S.

(As of Aug. 1, 1959.) Source: U. S. Department of State.

Country	U. S. Representative to	Rank	Representative from	Rank
Afghanistan	Henry A. Byroade	Amb.	Mohammed Hashim Maiwandwal	Amb.
Argentina	Willard L. Beaulac	Amb.	Dr. César Barros Hurtado	Amb.
Australia	William J. Sebald	Amb.	Howard Beale	Amb.
Austria	H. Freeman Matthews	Amb.	Dr. Wilfried Platzer	Amb.
Belgium	John Clifford Folger	Amb.	Baron Silvercruys	Amb.
Bolivia	Carl W. Strom	Amb.	Manuel Barrau	Amb.
Brazil	John M. Cabot	Amb.	Walther Moreira Salles	Amb.
Bulgaria				
Burma	Walter P. McConaughy	Amb.	U Win	Amb.
Cambodia	William C. Trimble	Amb.	Nong Kimny	Amb.
Canada	Richard B. Wigglesworth	Amb.	A. D. P. Heeney	Amb.
Ceylon	Bernard A. Gulfer	Amb.	R. S. S. Gunewardene	Amb.
Chile	Walter Howe	Amb.	Walter Müller	Amb.
China	Everett F. Drumright	Amb.	Dr. George K. C. Yeh	Amb.
Colombia	Dempster McIntosh	Amb.	Dr. José Gutiérrez-Gómez	Amb.
Costa Rica	Whitting Willauer	Amb.	Manuel G. Escalante	Amb.
Cuba	Philip W. Bonsal	Amb.	Dr. Ernesto Dihigo	Amb.
Czechoslovakia	John M. Allison	Amb.	Dr. Miloslav Ružek	Amb.
Denmark	Val Peterson	Amb.	Count Kield Gustav Knuth-Winterfeldt	Amb.
Dominican Republic	Joseph S. Farland	Amb.	Dr. Luis F. Thomen	Amb.
Ecuador	Christian M. Ravnal	Amb.	Dr. José R. Chiriboga V.	Amb.
El Salvador	Thorsten V. Kaljarvi	Amb.	Dr. Héctor David Castro	Amb.
Estonia	Legation closed	....	Johannes Kaiv ²	CG ³
Ethiopia	Don C. Bliss	Amb.	Zaude Gabre Heywot	Amb.
Finland	John D. Hickerson	Amb.	Richard R. Seppälä	Amb.
France	Amory Houghton	Amb.	Hervé Alphan	Amb.
Germany	David K. E. Bruce	Amb.	Wilhelm G. Grewe	Amb.
Ghana	Wilson C. Flake	Amb.	D. A. Chapman	Amb.
Great Britain	John Hay Whitney	Amb.	Sir Harold Caccia	Amb.
Greece	Ellis O. Briggs	Amb.	Alexis S. Liatis	Amb.
Guatemala	Lester D. Mallory	Amb.	Col. Arturo Ramírez P.	Amb.
Guinea	John Howard Morrow	Amb.	Teli Boubacar Diallo	Amb.
Haiti	Gerald A. Drew	Amb.	Ernest Bonhomme	Amb.
Honduras	Robert Newbegin	Amb.	Dr. Céleo Dávila	Amb.
Hungary	(vacant)	Min.	Tibor Zádor	Cd'A ⁶
Iceland	John J. Muccio	Amb.	Thor Thors	Amb.
India	Ellsworth Bunker ⁴	Amb.	Mahomedali Currim Chagla	Amb.
Indonesia	Howard P. Jones	Amb.	Moekarto Notowidigdo	Amb.
Iran	Edward T. Wallis	Amb.	Dr. Ali Gholi Ardalan	Amb.
Iraq	John D. Jernegan	Amb.	Ali Haider Sulaiman	Amb.
Ireland	Scott McLeod	Amb.	John Joseph Hearne	Amb.
Israel	Ogden R. Reid	Amb.	Avraham Harman	Amb.
Italy	James David Zellerbach	Amb.	Manlio Brosio	Amb.
Japan	Douglas MacArthur II	Amb.	Koichiro Asakai	Amb.
Jordan	Sheldon T. Mills	Amb.	Midhet Juma	Amb.
Korea	Walter C. Dowling	Amb.	Dr. You Chan Yang	Amb.
Laos	Horace H. Smith	Amb.	Ourot R. Souvannavong	Amb.
Latvia	Legation closed	....	Dr. Arriolds Spekke	Min.
Lebanon	Robert M. McClintock	Amb.	Nadim Dimechkié	Amb.
Liberia	(vacant)	Amb.	George A. Padmore	Amb.
Libya	J. Wesley Jones	Amb.	Dr. Mohieddine Fekini	Amb.
Lithuania	Legation closed	....	Joseph Kajeckas	Cd'A ⁶
Luxemburg	Vinton Chapin	Amb.	Georges Heisbourg	Amb.
Malaya	Homer M. Byington, Jr.	Amb.	Dato' Nik Ahmed Kamil	Amb.
Mexico	Robert C. Hill	Amb.	Antonio Carrillo Flores	Amb.
Morocco	Charles W. Yost	Amb.	Dr. El-Mehdi Ben Aboud	Amb.
Nepal	Ellsworth Bunker ⁴	Amb.	Rishikesh Shaha	Amb.
Netherlands	Philip Young	Amb.	Dr. J. H. van Roijen	Amb.
New Zealand	Francis H. Russell	Amb.	G. D. L. White	Cd'A ⁶
Nicaragua	Thomas E. Whelan	Amb.	Dr. Guillermo Sevilla-Sacasa	Amb.

Country	U. S. Representative to	Rank	Representative from	Rank
Norway	Frances E. Willis	Amb.	Paul Koht	Amb.
Pakistan	William M. Rountree	Amb.	Aziz Ahmed	Amb.
Panamá	Julian F. Harrington	Amb.	Ricardo M. Arias E.	Amb.
Paraguay	Walter C. Ploesser	Amb.	Dr. Juan Plate	Amb.
Peru	Theodore C. Achilles	Amb.	Fernando Berckemeyer	Amb.
Philippines	Charles E. Bohlen	Amb.	Gen. Carlos P. Romulo	Amb.
Poland	Jacob D. Beam	Amb.	Romuald Spasowski	Amb.
Portugal	C. Burke Elbrick	Amb.	Luis Esteves Fernandes	Amb.
Rumania	Clifton R. Wharton	Min.	Silviu Brucan	Min.
Saudi Arabia	Donald R. Heath	Amb.	Sheikh Adbullah Al-Khayyal	Amb.
Spain	John Lodge	Amb.	José M. de Arelliza	Amb.
Sudan	James S. Moose, Jr.	Amb.	Dr. Osman El Hadari	Amb.
Sweden	James C. H. Bonbright	Amb.	Gunnar Jarring	Amb.
Switzerland	Henry J. Taylor	Amb.	Henry de Torrenté	Amb.
Thailand	U. Alexis Johnson	Amb.	Visutr Arthayukti	Amb.
Tunisia	Walter N. Walmsley	Amb.	Mongi Slim	Amb.
Turkey	Fletcher Warren	Amb.	Ali S. H. Urgüplü	Amb.
Un. of So. Africa ..	Philip K. Crowe	Amb.	W. C. du Plessis	Amb.
U.S.S.R.	Llewellyn E. Thompson	Amb.	Mikhail A. Menshikov	Amb.
United Arab Republic	Raymond A. Hare ⁵	Amb.	Dr. Mostafa Kamel	Amb.
Uruguay	Robert F. Woodward	Amb.	Julio A. Lacarte	Amb.
Venezuela	Edward J. Sparks	Amb.	Dr. Marcos Falcón-Briceño	Amb.
Vietnam	Elbridge Durbrow	Amb.	Trần Van Chuong	Amb.
Yemen	Raymond A. Hare ⁵	Min.	Assayed Ahmad Ali Zabarab	Cd'A
Yugoslavia	Karl L. Rankin	Amb.	Marko Nikezić	Amb.

¹Formosa (Taiwan). ²Legation in New York. ³Acting. ⁴Accredited to India and Nepal; resident in New Delhi, India. ⁵Accredited as Ambassador to United Arab Republic and Minister to Yemen; resident in Cairo. ⁶Ad interim.

(Amb.—Ambassador; Min.—Minister; CG—Consul General; Cd'A—Chargé d'Affaires)

Assassinations and Attempts in U. S. Since 1865

CERMAK, Anton J. (Mayor of Chicago):

Shot Feb. 15, 1933, in Miami by Giuseppe Zangara, who attempted to assassinate Franklin D. Roosevelt; Cermak died Mar. 6.

GARFIELD, James A. (President of U. S.):

Shot July 2, 1881, in Washington, D. C., by Charles J. Guiteau; died Sept. 19.

LINCOLN, Abraham (President of U. S.):

Shot Apr. 14, 1865, in Washington, D. C., by John Wilkes Booth; died Apr. 15.

LONG, Huey P. (U. S. Senator from Louisiana):

Shot Sept. 8, 1935, in Baton Rouge by Dr. Carl A. Weiss; died Sept. 10.

McKINLEY, William (President of U. S.):

Shot Sept. 6, 1901, in Buffalo by Leon Czolgosz; died Sept. 14.

ROOSEVELT, Franklin D. (President-elect of U. S.):

Escaped assassination unhurt Feb. 15, 1933, in Miami. See Cermak.

ROOSEVELT, Theodore (ex-President of U. S.):

Escaped assassination (though shot) Oct. 14, 1912, in Milwaukee while campaigning for President.

SEWARD, William H. (Secretary of State):

Escaped assassination (though injured) Apr. 14, 1865, in Washington, D. C., by Lewis Powell (or Paine), accomplice of John Wilkes Booth.

TRUMAN, Harry S. (President of U. S.):

Escaped assassination unhurt Nov. 1, 1950, in Washington, D. C., as 2 Puerto Rican nationalists attempted to shoot their way into Blair House.

The Liberty Bell

The Liberty Bell was cast in England in 1752 for the Pennsylvania Statehouse (now Independence Hall). Damaged in transit, it was recast in Philadelphia in 1753. It is inscribed with the words, "Proclaim liberty throughout all the land unto all the inhabitants thereof" (Lev. 25:10). The bell was rung on July 8, 1776, for the first pub-

lic reading of the Declaration of Independence. Hidden in Allentown during the British occupation of Philadelphia, it was replaced in Independence Hall in 1778 where it remains today. The bell cracked on July 8, 1835, while tolling the death of Chief Justice John Marshall.

CONGRESS OF THE UNITED STATES

PARTY STRENGTH IN 82ND TO 86TH CONGRESSES

	The Senate*					The House†				
	82nd 1951	83rd 1953	84th 1955	85th 1957	86th 1959‡	82nd 1951	83rd 1953	84th 1955	85th 1957	86th 1959‡
Democratic	49	47	48	49	65	235	213	232	234	284
Republican	47	48	47	47	35	199	221	203	201	153
Other	0	1	1	0	0	1	1	0	0	0

* 49 necessary for majority in 82nd to 85th Congresses; 50, in 86th (51, after Senators from Hawaii were seated).
 † 218 necessary for majority in 82nd to 86th Congresses; 219, in 86th. ‡ Includes results of Hawaii elections of July, 1959. NOTE: The year shown with each Congress is the one in which the 1st session was held. Party, breakdown is according to the election held the preceding November.

THE EIGHTY-SIXTH CONGRESS

THE SENATE

The expiration date of each Senator's term is January of the year shown in parentheses. An asterisk (*) indicates that the Senator was re-elected in the 1958 elections to a full term.

ALABAMA

Lister Hill, D (1963)
 John J. Sparkman, D (1961)

ALASKA

E. L. (Bob) Bartlett, D (1961)
 Ernest Gruening, D (1963)

ARIZONA

Carl Hayden, D (1963)
 *Barry Goldwater, R (1965)

ARKANSAS

John L. McClellan, D (1961)
 J. W. Fulbright, D (1963)

CALIFORNIA

Thomas H. Kuchel, R (1963)
 Clair Engle, D (1965)

COLORADO

Gordon Allott, R (1961)
 John A. Carroll, D (1963)

CONNECTICUT

Prescott Bush, R (1963)
 Thomas J. Dodd, D (1965)

DELAWARE

*John J. Williams, R (1965)
 J. Allen Frear, Jr., D (1961)

FLORIDA

*Spessard L. Holland, D (1965)
 George A. Smathers, D (1963)

GEORGIA

Richard B. Russell, D (1961)
 Herman E. Talmadge, D (1963)

HAWAII

Hiram L. Fong, R (1965)
 Oren E. Long, D (1963)

IDAHO

Henry C. Dworshak, R (1961)
 Frank Church, D (1963)

ILLINOIS

Paul H. Douglas, D (1961)
 Everett M. Dirksen, R (1963)

INDIANA

Homer E. Capehart, R (1963)
 Vance Hartke, D (1965)

IOWA

B. B. Hickenlooper, R (1963)
 Thomas E. Martin, R (1961)

KANSAS

Andrew F. Schoepel, R (1961)
 Frank Carlson, R (1963)

KENTUCKY

John S. Cooper, R (1961)
 Thruston B. Morton, R (1963)

LOUISIANA

Allen J. Ellender, D (1961)
 Russell B. Long, D (1963)

MAINE

Margaret C. Smith, R (1961)
 Edmund S. Muskie, D (1965)

MARYLAND

John M. Butler, R (1963)
 *J. Glenn Beall, R (1965)

MASSACHUSETTS

Leverett Saltonstall, R (1961)
 *John F. Kennedy, D (1965)

MICHIGAN

Pat McNamara, D (1961)
 Philip A. Hart, D (1965)

MINNESOTA

Hubert H. Humphrey, D (1961)
 Eugene J. McCarthy, D (1965)

MISSISSIPPI

James O. Eastland, D (1961)
 *John Stennis, D (1965)

MISSOURI

T. C. Hennings, Jr., D (1963)
 *Stuart Symington, D (1965)

MONTANA

James E. Murray, D (1961)
 *Mike Mansfield, D (1965)

NEBRASKA

*Roman L. Hruska, R (1965)
 Carl T. Curtis, R (1961)

NEVADA

Alan Bible, D (1963)
 Howard W. Cannon, D (1965)

NEW HAMPSHIRE

Styles Bridges, R (1961)
 Norris Cotton, R (1963)

NEW JERSEY

Clifford P. Case, R (1961)
 H. A. Williams, Jr., D (1965)

NEW MEXICO

*Dennis Chavez, D (1965)
 Clinton P. Anderson, D (1961)

NEW YORK

Jacob K. Javits, R (1963)
 Kenneth B. Keating, R (1965)

NORTH CAROLINA

Sam J. Ervin, Jr., D (1963)
 B. Everett Jordan, D (1961)

NORTH DAKOTA

*William Langer, R (1965)
 Milton R. Young, R (1963)

OHIO

Frank J. Lausche, D (1963)
 Stephen M. Young, D (1965)

OKLAHOMA

Robert S. Kerr, D (1961)
 A. S. Mike Monroney, D (1963)

OREGON

Wayne Morse, D (1963)
 Richard L. Neuberger, D (1961)

PENNSYLVANIA

Joseph S. Clark, D (1963)
 Hugh Scott, R (1965)

RHODE ISLAND

Theodore F. Green, D (1961)
 *John O. Pastore, D (1965)

SOUTH CAROLINA

Olin D. Johnston, D (1963)
 Strom Thurmond, D (1961)

SOUTH DAKOTA

Karl E. Mundt, R (1961)
 Francis Case, R (1963)

TENNESSEE

Estes Kefauver, D (1961)
 *Albert Gore, D (1965)

TEXAS

Lyndon B. Johnson, D (1961)
 *R. W. Yarborough, D (1965)

UTAH

Wallace F. Bennett, R (1963)
 Frank E. Moss, D (1965)

VERMONT
George D. Aiken, R (1963)
Winston L. Prouty, R (1965)
VIRGINIA
*Harry Flood Byrd, D (1965)
A. Willis Robertson, D (1961)

WASHINGTON
Warren G. Magnuson, D (1963)
*Henry M. Jackson, D (1965)
WEST VIRGINIA
Jennings Randolph, D (1961)
Robert C. Byrd, D (1965)

WISCONSIN
Alexander Wiley, R (1963)
*William Proxmire, D (1965)
WYOMING
Joseph O'Mahoney, D (1961)
Gale W. McGee, D (1965)

CONGRESSIONAL COMMITTEES

Committees of the Senate

Aeronautical and Space Sciences (15 members)
Chairman: Lyndon B. Johnson (Tex.)
Ranking Rep.: Styles Bridges (N. H.)
Agriculture and Forestry (17 members)
Chairman: Allen J. Ellender (La.)
Ranking Rep.: George D. Aiken (Vt.)
Appropriations (27 members)
Chairman: Carl Hayden (Ariz.)
Ranking Rep.: Styles Bridges (N. H.)
Armed Services (17 members)
Chairman: Richard B. Russell (Ga.)
Ranking Rep.: Leverett Saltonstall (Mass.)
Banking and Currency (15 members)
Chairman: A. Willis Robertson (Va.)
Ranking Rep.: Homer E. Capehart (Ind.)
District of Columbia (7 members)
Chairman: Alan Bible (Nev.)
Ranking Rep.: J. Glenn Beall (Md.)
Finance (17 members)
Chairman: Harry Flood Byrd (Va.)
Ranking Rep.: John J. Williams (Del.)
Foreign Relations (17 members)
Chairman: J. W. Fulbright (Ark.)
Ranking Rep.: Alexander Wiley (Wis.)

Government Operations (9 members)
Chairman: John L. McClellan (Ark.)
Ranking Rep.: Karl E. Mundt (S. D.)
Interior and Insular Affairs (15 members)
Chairman: James E. Murray (Mont.)
Ranking Rep.: Henry C. Dworshak (Idaho)
Interstate and Foreign Commerce (17 members)
Chairman: Warren G. Magnuson (Wash.)
Ranking Rep.: Andrew F. Schoeppel (Kan.)
Judiciary (15 members)
Chairman: James O. Eastland (Miss.)
Ranking Rep.: Alexander Wiley (Wis.)
Labor and Public Welfare (15 members)
Chairman: Lister Hill (Ala.)
Ranking Rep.: Barry Goldwater (Ariz.)
Post Office and Civil Service (9 members)
Chairman: Olin D. Johnston (S. C.)
Ranking Rep.: Frank Carlson (Kan.)
Public Works (15 members)
Chairman: Dennis Chavez (N. M.)
Ranking Rep.: Francis Case (S. D.)
Rules and Administration (9 members)
Chairman: Thomas C. Hennings, Jr. (Mo.)
Ranking Rep.: Carl T. Curtis (Neb.)

Committees of the House

Agriculture (36 members)
Chairman: Harold D. Cooley (N. C.)
Ranking Rep.: Charles B. Hoeven (Iowa)
Appropriations (50 members)
Chairman: Clarence Cannon (Mo.)
Ranking Rep.: John Taber (N. Y.)
Armed Services (39 members)
Chairman: Carl Vinson (Ga.)
Ranking Rep.: Leslie C. Arends (Ill.)
Banking and Currency (30 members)
Chairman: Brent Spence (Ky.)
Ranking Rep.: Clarence E. Kilburn (N. Y.)
District of Columbia (25 members)
Chairman: John L. McMillan (S. C.)
Ranking Rep.: James C. Auchincloss (N. J.)
Education and Labor (30 members)
Chairman: Graham A. Barden (N. C.)
Ranking Rep.: Carroll D. Kearns (Pa.)
Foreign Affairs (32 members)
Chairman: Thomas E. Morgan (Pa.)
Ranking Rep.: Robert B. Chipfield (Ill.)
Government Operations (30 members)
Chairman: William L. Dawson (Ill.)
Ranking Rep.: Clare E. Hoffman (Mich.)
House Administration (25 members)
Chairman: Omar Burleson (Tex.)
Ranking Rep.: Paul F. Schenck (Ohio)
Interior and Insular Affairs (33 members)
Chairman: Wayne N. Aspinall (Colo.)
Ranking Rep.: John P. Saylor (Pa.)

Interstate and Foreign Commerce (33 members)
Chairman: Oren Harris (Ark.)
Ranking Rep.: John B. Bennett (Mich.)
Judiciary (32 members)
Chairman: Emanuel Celler (N. Y.)
Ranking Rep.: William M. McCulloch (Ohio)
Merchant Marine and Fisheries (31 members)
Chairman: Herbert C. Bonner (N. C.)
Ranking Rep.: Thor C. Tollefson (Wash.)
Post Office and Civil Service (25 members)
Chairman: Tom Murray (Tenn.)
Ranking Rep.: Edward H. Rees (Kan.)
Public Works (34 members)
Chairman: Charles A. Buckley (N. Y.)
Ranking Rep.: James C. Auchincloss (N. J.)
Rules (12 members)
Chairman: Howard W. Smith (Va.)
Ranking Rep.: Leo E. Allen (Ill.)
Science and Astronautics (25 members)
Chairman: Overton Brooks (La.)
Ranking Rep.: Joseph W. Martin, Jr. (Mass.)
Un-American Activities (9 members)
Chairman: Francis E. Walter (Pa.)
Ranking Rep.: Donald L. Jackson (Calif.)
Veterans' Affairs (25 members)
Chairman: Olin E. Teague (Tex.)
Ranking Rep.: Edith Nourse Rogers (Mass.)
Ways and Means (25 members)
Chairman: Wilbur D. Mills (Ark.)
Ranking Rep.: Richard M. Simpson (Pa.)

THE HOUSE OF REPRESENTATIVES

The apportionment based on the Seventeenth Census (1950) distributed the seats in the House among the states according to the method of equal proportions. By this method the per cent difference between the average number of Representatives per million people in any 2 states is made as small as possible. Also, the per cent difference between the average districts, i.e., the average number of persons per Representative, in any 2 states is made as small as possible. By equalizing the representation of all pairs of states, the method gives as nearly equal representation as possible to all states in proportion to their population.

The numerals indicate the Congressional Districts of the states, and the designation At-L means At-Large. An asterisk (*) indicates that the Congressman was returned to office in the 1958 elections. The terms of all Representatives end January, 1961.

ALABAMA

(9 Representatives)

1. *Frank W. Boykin, D
2. *George M. Grant, D
3. *George W. Andrews, D
4. *Kenneth A. Roberts, D
5. *Albert Rains, D
6. *Armistead I. Selden, Jr., D
7. *Carl Elliott, D
8. *Robert E. Jones, D
9. *George Huddleston, Jr., D

ALASKA

(1 Representative)

At-L. Ralph J. Rivers, D

ARIZONA

(2 Representatives)

1. *John J. Rhodes, R
2. *Stewart L. Udall, D

ARKANSAS

(6 Representatives)

1. *E. C. Gathings, D
2. *Wilbur D. Mills, D
3. *James W. Trimble, D
4. *Oren Harris, D
5. Dale Alford, D
6. *W. F. Norrell, D

CALIFORNIA

(30 Representatives)

1. Clement W. Miller, D
2. Harold T. Johnson, D
3. *John E. Moss, Jr., D
4. *William S. Mailliard, R
5. *John F. Shelley, D
6. *John F. Baldwin, R
7. Jeffery Cohelan, D
8. *George P. Miller, D
9. *J. Arthur Younger, R
10. *Charles S. Gubser, R
11. *John J. McFall, D
12. *B. F. Sisk, D
13. *Charles M. Teague, R
14. *Harlan Hagen, D
15. *Gordon L. McDonough, R
16. *Donald L. Jackson, R
17. *Cecil R. King, D
18. *Craig Hosmer, R
19. *Chet Holifield, D
20. *H. Allen Smith, R
21. *Edgar W. Hiestand, R
22. *Joe Holt, R
23. *Clyde Doyle, D
24. *Glenard P. Lipscomb, R
25. George A. Kasem, D
26. *James Roosevelt, D

27. *Harry R. Sheppard, D

28. *James B. Utt, R

29. *D. S. Saund, D

30. *Bob Wilson, R

COLORADO

(4 Representatives)

1. *Byron G. Rogers, D
2. Byron L. Johnson, D
3. *J. Edgar Chenoweth, R
4. *Wayne N. Aspinall, D

CONNECTICUT

(6 Representatives)

1. Emilio Q. Daddario, D
 2. Chester Bowles, D
 3. Robert N. Giaimo, D
 4. Donald J. Irwin, D
 5. John S. Monagan, D
- At-L. Frank Kowalski, D

DELAWARE

(1 Representative)

At-L. Harris B. McDowell, Jr., D

FLORIDA

(8 Representatives)

1. *William C. Cramer, R
2. *Charles E. Bennett, D
3. *Robert L. F. Sikes, D
4. *Dante B. Fascell, D
5. *A. Sydney Herlong, Jr., D
6. *Paul G. Rogers, D
7. *James A. Haley, D
8. *D. R. (Billy) Matthews, D

GEORGIA

(10 Representatives)

1. *Prince H. Preston, D
2. *John L. Pilcher, D
3. *E. L. Forrester, D
4. *John James Flynt, Jr., D
5. *James C. Davis, D
6. *Carl Vinson, D
7. *Erwin Mitchell, D
8. *Mrs. Iris F. Blitch, D
9. *Phil M. Landrum, D
10. *Paul Brown, D

HAWAII

(1 Representative)

At-L. Daniel K. Inouye, D

IDAHO

(2 Representatives)

1. *Mrs. Gracie Pfost, D
2. *Hamer H. Budge, R

ILLINOIS

(25 Representatives)

1. *William L. Dawson, D
2. *Barratt O'Hara, D
3. William T. Murphy, D
4. Edward J. Derwinski, R
5. *John C. Kluczynski, D
6. *Thomas J. O'Brien, D
7. *Roland V. Libonati, D
8. Dan Rostenkowski, D
9. *Sidney R. Yates, D
10. *Harold R. Collier, R
11. Roman C. Pucinski, D
12. *Charles A. Boyle, D
13. *Marguerite S. Church, R
14. Elmer J. Hoffman, R
15. *Noah M. Mason, R
16. *Leo E. Allen, R
17. *Leslie C. Arends, R
18. *Robert H. Michel, R
19. *Robert B. Chipperfield, R
20. *Mrs. Edna Simpson, R
21. *Peter F. Mack, Jr., D
22. *William L. Springer, R
23. George E. Shipley, D
24. *Melvin Price, D
25. *Kenneth J. Gray, D

INDIANA

(11 Representatives)

1. *Ray J. Madden, D
2. *Charles A. Halleck, R
3. John Brademas, D
4. *E. Ross Adair, R
5. J. Edward Roush, D
6. Fred Wampler, D
7. *William G. Bray, R
8. *Winfield K. Denton, D
9. Earl Hogan, D
10. Randall S. Harmon, D
11. Joseph W. Barr, D

IOWA

(8 Representatives)

1. *Fred Schwengel, R
2. Leonard G. Wolf, D
3. *H. R. Gross, R
4. Steven V. Carter, D
5. Neal Smith, D
6. *Merwin Coad, D
7. *Ben F. Jensen, R
8. *Charles B. Hoeven, R

KANSAS

(6 Representatives)

1. *William H. Avery, R
2. Newell A. George, D
3. Denver D. Hargis, D

4. *Edward H. Rees, R
5. *J. Floyd Breeding, D
6. *Wint Smith, R

KENTUCKY

(8 Representatives)

1. Frank A. Stubblefield, D
2. *William H. Natcher, D
3. Frank W. Burke, D
4. *Frank Chelf, D
5. *Brent Spence, D
6. *John C. Watts, D
7. *Carl D. Perkins, D
8. *Eugene Siler, R

LOUISIANA

(8 Representatives)

1. *F. Edward Hébert, D
2. *Hale Boggs, D
3. *Edwin E. Willis, D
4. *Overton Brooks, D
5. *Otto E. Passman, D
6. *James H. Morrison, D
7. *T. Ashton Thompson, D
8. Harold B. McSween, D

MAINE

(3 Representatives)

1. James C. Oliver, D
2. *Frank M. Coffin, D
3. *Clifford G. McIntire, R

MARYLAND

(7 Representatives)

1. Thomas F. Johnson, D
2. Daniel B. Brewster, D
3. *Edward A. Garmatz, D
4. *George H. Fallon, D
5. *Richard E. Lankford, D
6. John R. Foley, D
7. *Samuel N. Friedel, D

MASSACHUSETTS

(14 Representatives)

1. Silvio O. Conte, R
2. *Edward P. Boland, D
3. *Philip J. Philbin, D
4. *Harold D. Donohue, D
5. *Edith Nourse Rogers, R
6. *William H. Bates, R
7. *Thomas J. Lane, D
8. *Torbert H. Macdonald, D
9. Hastings Keith, R
10. *Laurence Curtis, R
11. *Thomas P. O'Neill, Jr., D
12. *John W. McCormack, D
13. James A. Burke, D
14. *Joseph W. Martin, Jr., R

MICHIGAN

(18 Representatives)

1. *T. M. Machrowicz, D
2. *George Meader, R
3. *August E. Johansen, R
4. *Clare E. Hoffman, R
5. *Gerald R. Ford, Jr., R
6. *Charles E. Chamberlain, R
7. James G. O'Hara, D
8. *Alvin M. Bentley, R
9. *Robert P. Griffin, R
10. *Elford A. Cederberg, R
11. *Victor A. Knox, R

12. *John B. Bennett, R
13. *Charles C. Diggs, Jr., D
14. *Louis C. Rabaut, D
15. *John D. Dingell, D
16. *John Lesinski, D
17. *Martha W. Griffiths, D
18. *William S. Broomfield, R

MINNESOTA

(9 Representatives)

1. *Albert H. Quile, R
2. Anchor Nelsen, R
3. *Roy W. Wier, D
4. Joseph E. Karth, D
5. *Walter H. Judd, R
6. *Fred Marshall, D
7. *H. Carl Andersen, R
8. *John A. Blatnik, D
9. Odin Langen, R

MISSISSIPPI

(6 Representatives)

1. *Thomas G. Abernethy, D
2. *Jamie L. Whitten, D
3. *Frank E. Smith, D
4. *John Bell Williams, D
5. *Arthur Winstead, D
6. *William M. Colmer, D

MISSOURI

(11 Representatives)

1. *Frank M. Karsten, D
2. *Thomas B. Curtis, R
3. *Lemon K. Sullivan, D
4. William J. Randall, D
5. *Richard Bolling, D
6. *W. R. Hull, Jr., D
7. *Charles H. Brown, D
8. *A. S. J. Carnahan, D
9. *Clarence Cannon, D
10. *Paul C. Jones, D
11. *Morgan M. Moulder, D

MONTANA

(2 Representatives)

1. *Lee Metcalf, D
2. *LeRoy H. Anderson, D

NEBRASKA

(4 Representatives)

1. *Phil Weaver, R
2. *Glenn Cunningham, R
3. Larry Brock, D
4. Donald F. McGinley, D

NEVADA

(1 Representative)

- At-L. *Walter S. Baring, D

NEW HAMPSHIRE

(2 Representatives)

1. *Chester E. Merrow, R
2. *Perkins Bass, R

NEW JERSEY

(14 Representatives)

1. William T. Cahill, R
2. *Milton W. Glenn, R
3. *James C. Auchincloss, R
4. *Frank Thompson, Jr., D

5. *Peter Frelinghuysen, Jr., R
6. *Florence P. Dwyer, R
7. *William B. Widnall, R
8. *Gordon Canfield, R
9. *Frank C. Osmer, Jr., R
10. *Peter W. Rodino, Jr., D
11. *Hugh J. Addonizio, D
12. George M. Wallhauser, R
13. Cornelius E. Gallagher, D
14. Dominick V. Daniels, D

NEW MEXICO

(2 Representatives)

- At-L. *Joseph M. Montoya, D
- At-L. Thomas G. Morris, D

NEW YORK

(43 Representatives)

1. *Stuyvesant Wainwright, R
2. *Steven B. Derounian, R
3. *Frank J. Becker, R
4. Seymour Halpern, R
5. *Albert H. Bosch, R
6. *Lester Holtzman, D
7. *James J. Delaney, D
8. *Victor L. Anfuso, D
9. *Eugene J. Keogh, D
10. *Edna F. Kelly, D
11. *Emanuel Celler, D
12. *Francis E. Dorn, R
13. *Abraham J. Multer, D
14. *John J. Rooney, D
15. *John H. Ray, R
16. *Adam C. Powell, D
17. John V. Lindsay, R
18. *Alfred E. Santangelo, D
19. *Leonard Farbstein, D
20. *Ludwig Teller, D
21. *Herbert Zelenko, D
22. *James C. Healey, D
23. *Isidore Dollinger, D
24. *Charles A. Buckley, D
25. *Paul A. Fino, R
26. *Edwin B. Dooley, R
27. Robert R. Barry, R
28. *Katharine St. George, R
29. *J. Ernest Wharton, R
30. *Leo W. O'Brien, D
31. *Dean P. Taylor, R
32. Samuel S. Stratton, D
33. *Clarence E. Kilburn, R
34. Alexander Pirnie, R
35. *R. Walter Riehman, R
36. *John Taber, R
37. *Howard W. Robison, R
38. Jessica McC. Weis, R
39. *Harold C. Ostertag, R
40. *William E. Miller, R
41. Thaddeus J. Dulski, D
42. *John R. Pillion, R
43. Charles E. Goodell, R

NORTH CAROLINA

(12 Representatives)

1. *Herbert C. Bonner, D
2. *L. H. Fountain, D
3. *Graham A. Barden, D
4. *Harold D. Cooley, D
5. *Ralph J. Scott, D

6. *Carl T. Durham, D
7. *Alton Lennon, D
8. *A. Paul Kitchen, D
9. *Hugh Alexander, D
10. *Charles Raper Jonas, R
11. *Basil L. Whitener, D
12. David M. Hall, D

NORTH DAKOTA

(2 Representatives)

- At-L. Quentin N. Burdick, D
At-L. Don L. Short, R

OHIO

(23 Representatives)

1. *Gordon H. Scherer, R
2. *William E. Hess, R
3. *Paul F. Schenck, R
4. *William M. McCulloch, R
5. Delbert L. Latta, R
6. (Vacant)¹
7. *Clarence J. Brown, R
8. *Jackson E. Betts, R
9. *Thomas L. Ashley, D
10. Walter H. Moeller, D
11. Robert E. Cook, D
12. Samuel L. Devine, R
13. *A. D. Baumhart, Jr., R
14. *William H. Ayres, R
15. *John E. Henderson, R
16. *Frank T. Bow, R
17. Robert W. Levering, D
18. *Wayne L. Kays, D
19. *Michael J. Kirwan, D
20. *Michael A. Feighan, D
21. *Charles A. Vanik, D
22. *Frances P. Bolton, R
23. *William E. Minshall, R

OKLAHOMA

(6 Representatives)

1. *Page Belcher, R
2. *Ed Edmondson, D
3. *Carl Albert, D
4. *Tom Steed, D
5. *John Jarman, D
6. *Toby Morris, D

OREGON

(4 Representatives)

1. *Walter Norblad, R
2. *Al Ullman, D
3. *Edith Green, D
4. *Charles O. Porter, D

PENNSYLVANIA

(30 Representatives)

1. *William A. Barrett, D
2. *Kathryn E. Granahan, D
3. *James A. Byrne, D
4. *Robert N. C. Nix, D
5. *William J. Green, Jr., D
6. Herman Toll, D
7. William H. Milliken, Jr., R
8. *Willard S. Curtin, R
9. *Paul B. Dague, R
10. Stanley A. Prokop, D
11. *Daniel J. Flood, D
12. *Ivor D. Fenton, R
13. *John A. Lafore, Jr., R

14. *George M. Rhodes, D
15. *Francis E. Walter, D
16. *Walter M. Mumma, R
17. *Alvin R. Bush, R
18. *Richard M. Simpson, R
19. James M. Quigley, D
20. *James E. Van Zandt, R
21. *John H. Dent, D
22. *John P. Saylor, R
23. *Leon H. Gavin, R
24. *Carroll D. Kearns, R
25. *Frank M. Clark, D
26. *Thomas E. Morgan, D
27. *James G. Fulton, R
28. William S. Moorhead, D
29. *Robert J. Corbett, R
30. *Elmer J. Holland, D

RHODE ISLAND

(2 Representatives)

1. *Aime J. Forand, D
2. *John E. Fogarty, D

SOUTH CAROLINA

(6 Representatives)

1. *L. Mendel Rivers, D
2. *John J. Riley, D
3. *W. J. Bryan Dorn, D
4. *Robert T. Ashmore, D
5. *Robert W. Hemphill, D
6. *John L. McMillan, D

SOUTH DAKOTA

(2 Representatives)

1. *George McGovern, D
2. *E. Y. Berry, R

TENNESSEE

(9 Representatives)

1. *B. Carroll Reece, R
2. *Howard H. Baker, R
3. *James B. Frazier, Jr., D
4. *Joe L. Evins, D
5. *J. Carlton Loser, D
6. *Ross Bass, D
7. *Tom Murray, D
8. *Robert A. Everett, D
9. *Clifford Davis, D

TEXAS

(22 Representatives)

1. *Wright Patman, D
2. *Jack Brooks, D
3. *Lindley Beckworth, D
4. *Sam Rayburn, D
5. *Bruce Alger, R
6. *Olin E. Teague, D
7. *John Dowdy, D
8. *Albert Thomas, D
9. *Clark W. Thompson, D
10. *Homer Thornberry, D
11. *W. R. Poage, D
12. *James C. Wright, Jr., D
13. *Frank Ikard, D
14. *John Young, D
15. *Joe M. Kilgore, D
16. *J. T. Rutherford, D
17. *Omar Burleson, D

18. *Walter Rogers, D
19. *George H. Mahon, D
20. *Paul J. Kilday, D
21. *O. C. Fisher, D
22. Bob Casey, D

UTAH

(2 Representatives)

1. *Henry Aldous Dixon, R
2. David S. King, D

VERMONT

(1 Representative)

- At-L. William H. Meyer, D

VIRGINIA

(10 Representatives)

1. Thomas N. Downing, D
2. *Porter Hardy, Jr., D
3. *J. Vaughan Gary, D
4. *Watkins M. Abbitt, D
5. *William M. Tuck, D
6. *Richard H. Poff, R
7. *Burr P. Harrison, D
8. *Howard W. Smith, D
9. *W. Pat Jennings, D
10. *Joel T. Broyhill, R

WASHINGTON

(7 Representatives)

1. *Thomas M. Pelly, R
2. *Jack Westland, R
3. *Russell V. Mack, R
4. Catherine May, R
5. *Walt Horan, R
6. *Thor C. Tollefson, R
7. *Don Magnuson, D

WEST VIRGINIA

(6 Representatives)

1. *Arch A. Moore, Jr., R
2. *Harley O. Staggers, D
3. *Cleveland M. Bailey, D
4. Ken Hechler, D
5. *Elizabeth Kee, D
6. John M. Slack, Jr., D

WISCONSIN

(10 Representatives)

1. Gerald T. Flynn, D
2. Robert W. Kastenmeier, D
3. *Gardner R. Withrow, R
4. *Clement J. Zablocki, D
5. *Henry S. Reuss, D
6. *William K. Van Pelt, R
7. *Melvin R. Laird, R
8. *John W. Byrnes, R
9. *Lester R. Johnson, D
10. *Alvin E. O'Konski, R

WYOMING

(1 Representative)

- At-L. *Keith Thomson, R

PUERTO RICO(1 Resident Commissioner)²

- Antonio Fernós-Isern, Pop. Dem.

¹ James G. Polk, D, died Apr. 23, 1959. ² Does not have a vote.

Members of the Supreme Court of the United States

Source: The Marshal, Supreme Court of the United States.

Name	Birth		Religious Affiliation <i>(Source: Library of Congress)</i>	Appointment		Oath Taken		Service Terminated			Death		
	Place	Date		From	President	Date	Age	Date	Cause	Years Served	Age	Date	Age
CHIEF JUSTICES													
John Jay	N. Y.	1745	Episcopal	N. Y.	Washington	1790	44	1795	resigned	5	49	1829	83
John Rutledge	S. C.	1739	Church of England	S. C.	Washington	1795	55	1795	rejected	0	56	1800	60
Oliver Ellsworth	Conn.	1745	Congregational	Conn.	Washington	1796	50	1800	resigned	4	55	1807	62
John Marshall	Va.	1755	Episcopal	Va.	J. Adams	1801	45	1835	death	34	79	1835	79
Roger B. Taney	Md.	1777	Roman Catholic	Md.	Jackson	1836	59	1864	death	28	87	1864	87
Salmon P. Chase	N. H.	1808	Episcopal	Ohio	Lincoln	1864	56	1873	death	8	65	1873	65
Morrison R. Waite	Conn.	1816	Episcopal	Ohio	Grant	1874	57	1888	death	14	71	1888	71
Melville W. Fuller	Maine	1833	Protestant	Ill.	Cleveland	1888	55	1910	death	21	77	1910	77
Edward D. White	La.	1845	Roman Catholic	La.	Taft	1910	65	1921	death	10	75	1921	75
William H. Taft	Ohio	1857	Unitarian	Conn.	Harding	1921	63	1930	retired	8	72	1930	72
Charles E. Hughes	N. Y.	1862	Baptist	N. Y.	Hoover	1930	67	1941	retired	11	79	1948	86
Harlan F. Stone	N. H.	1872	Episcopal	N. Y.	F. Roosevelt	1941	68	1946	death	4	73	1946	73
Frederick M. Vinson	Ky.	1890	Methodist	Ky.	Truman	1946	56	1953	death	7	63	1953	63
Earl Warren	Calif.	1891	Baptist	Calif.	Eisenhower	1953	62	....	.....	....	....	....	....
ASSOCIATE JUSTICES													
James Wilson	Scotland	1742	Episcopal	Pa.	Washington	1789	47	1798	death	8	55	1798	55
John Rutledge	S. C.	1739	Church of England	S. C.	Washington	1790	50	1791	resigned	1	51	1800	60
William Cushing	Mass.	1732	Unitarian	Mass.	Washington	1790	57	1810	death	20	78	1810	78
John Blair	Va.	1732	Presbyterian	Va.	Washington	1790	58	1796	resigned	5	64	1800	68
James Iredell	England	1751	Episcopal	N. C.	Washington	1790	38	1799	death	9	48	1799	48
Thomas Johnson	Md.	1732	Episcopal	Md.	Washington	1792	59	1793	resigned	0	60	1819	86
William Paterson	Ireland	1745	Presbyterian	N. J.	Washington	1793	47	1806	death	13	60	1806	60
Samuel Chase	Md.	1741	Episcopal	Md.	Washington	1796	54	1811	death	15	70	1811	70
Bushrod Washington	Va.	1762	Church of England	Va.	J. Adams	1799	36	1829	death	30	67	1829	67
Alfred Moore	N. C.	1755	Protestant	N. C.	J. Adams	1800	45	1804	resigned	3	48	1810	55
William Johnson	S. C.	1771	Presbyterian	S. C.	Jefferson	1804	32	1834	death	30	62	1834	62
Brockhoist Livingston	N. Y.	1757	Presbyterian	N. Y.	Jefferson	1807	49	1823	death	16	65	1823	65
Thomas Todd	Va.	1765	Presbyterian	Ky.	Jefferson	1807	42	1826	death	18	61	1826	61
Gabriel Duval	Md.	1752	French Protestant	Md.	Madison	1811	58	1835	resigned	23	82	1844	91
Joseph Story	Mass.	1779	Calvinist	Mass.	Madison	1812	32	1845	death	33	65	1845	65
Smith Thompson	N. Y.	1768	Presbyterian	N. Y.	Monroe	1823	55	1843	death	20	75	1843	75
Robert Trimble	Va.	1777	Protestant	Ky.	J. Q. Adams	1826	49	1828	death	2	51	1828	51
John McLean	N. J.	1785	(?)	Ohio	Jackson	1830	44	1861	death	31	76	1861	76
Henry Baldwin	Conn.	1780	Not known	Pa.	Jackson	1830	50	1844	death	14	64	1844	64
James M. Wayne	Ga.	1790	Protestant	Ga.	Jackson	1835	45	1867	death	32	77	1867	77

Philip P. Barbour.....	Va.	1783	Baptist	Va.	Jackson	1836	52	1841	death.	4	57	1841	57
John Catron.....	Pa.	1786	Presbyterian	Tenn.	Van Buren	1837	51	1865	death	28	72	1865	79
John McKinley.....	Va.	1780	Protestant	Ala.	Van Buren	1838	57	1852	death	14	72	1852	72
Peter V. Daniel.....	Va.	1784	Protestant	Va.	Van Buren	1842	57	1860	death	18	76	1860	76
Samuel Nelson.....	N. Y.	1792	Protestant	N. Y.	Tyler	1845	52	1872	retired	27	80	1873	81
Levi Woodbury.....	N. H.	1789	Protestant	N. H.	Polk	1845	55	1851	death	5	61	1851	61
Robert C. Grier.....	Pa.	1794	Presbyterian	Pa.	Polk	1846	52	1870	retired	23	75	1870	76
Benjamin R. Curtis.....	Mass.	1809	(?)	Mass.	Fillmore	1851	41	1857	resigned	5	47	1874	64
John A. Campbell.....	Ga.	1811	Protestant	Ala.	Pierce	1853	41	1861	resigned	8	49	1889	77
Nathan Clifford.....	N. H.	1803	Protestant	Maine	Buchanan	1858	54	1881	death	23	77	1881	77
Noah H. Swaine.....	Va.	1804	Quaker	Ohio	Lincoln	1862	57	1881	retired	18	76	1884	79
Samuel F. Miller.....	Ky.	1816	Protestant	Iowa	Lincoln	1862	46	1890	death	28	74	1890	74
David Davis.....	Md.	1815	Episcopal	Ill.	Lincoln	1862	47	1877	resigned	14	61	1886	71
Stephen J. Field.....	Conn.	1816	Congregational	Calif.	Lincoln	1863	46	1897	retired	34	81	1899	82
William Strong.....	Conn.	1808	Presbyterian	Pa.	Grant	1870	61	1880	retired	10	72	1895	87
Joseph P. Bradley.....	N. Y.	1813	Protestant	N. J.	Grant	1870	57	1892	death	21	78	1892	78
Ward Hunt.....	N. Y.	1810	Episcopal	N. Y.	Grant	1873	62	1882	disabled	9	71	1886	75
John M. Harlan.....	Ky.	1833	Presbyterian	Ky.	Hayes	1877	44	1911	death	33	78	1911	78
William B. Woods.....	Ohio	1824	Protestant	Ga.	Hayes	1881	56	1887	death	6	62	1887	62
Stanley Matthews.....	Ohio	1824	Presbyterian	Ohio	Garfield	1881	56	1889	death	7	64	1889	64
Horace Gray.....	Mass.	1820	(?)	Mass.	Arthur	1882	53	1902	death	20	74	1902	74
Samuel Blatchford.....	N. Y.	1828	Presbyterian	N. Y.	Arthur	1882	62	1893	death	11	73	1893	73
Lucius Q. C. Lamar.....	Ga.	1825	Methodist	Miss.	Cleveland	1888	62	1893	death	5	67	1893	67
David J. Brewer.....	Asia Minor	1837	Protestant	Kans.	Harrison	1890	52	1910	death	20	72	1910	72
Henry B. Brown.....	Mass.	1836	Protestant	Mich.	Harrison	1891	54	1906	retired	15	70	1913	77
George Shiras, Jr.....	Pa.	1832	Presbyterian	Pa.	Harrison	1892	60	1903	retired	10	71	1924	92
Howell E. Jackson.....	Tenn.	1832	Baptist	Tenn.	Harrison	1893	60	1895	death	2	63	1895	63
Edward D. White.....	La.	1845	Roman Catholic	La.	Cleveland	1894	48	1910	promoted	16	65	1921	75
Rufus W. Peckham.....	N. Y.	1838	Episcopal	N. Y.	Cleveland	1896	57	1909	death	13	70	1909	70
Joseph McKenna.....	Pa.	1843	Roman Catholic	Calif.	McKinley	1898	54	1925	retired	26	81	1926	83
Oliver W. Holmes.....	Mass.	1841	Congregational	Mass.	T. Roosevelt	1902	61	1932	retired	29	90	1935	93
William R. Day.....	Ohio	1849	Protestant	Ohio	T. Roosevelt	1903	53	1922	retired	19	73	1923	74
William H. Moody.....	Mass.	1853	Protestant	Mass.	T. Roosevelt	1906	52	1910	disabled	3	56	1917	63
Horace H. Lurton.....	Ky.	1844	Episcopal	Tenn.	Taft	1910	65	1914	death	4	70	1914	70
Charles E. Hughes.....	N. Y.	1862	Baptist	N. Y.	Taft	1910	48	1916	resigned	5	54	1948	86
Willis Van Devanter.....	Ind.	1859	Episcopal	Wyo.	Taft	1911	51	1937	retired	26	78	1941	81
Joseph R. Lamar.....	Ga.	1857	Ch. of Disciples	Ga.	Taft	1911	53	1916	death	4	58	1916	58
Mahlon Pitney.....	N. J.	1858	Presbyterian	N. J.	Taft	1912	54	1922	disabled	10	64	1924	66
James C. McReynolds.....	Ky.	1862	Disciples of Christ	Tenn.	Wilson	1914	52	1941	retired	26	78	1946	84
Louis D. Brandeis.....	Ky.	1856	Hebrew	Mass.	Wilson	1916	59	1939	retired	22	82	1941	84
John H. Clarke.....	Ohio	1857	Protestant	Ohio	Wilson	1916	59	1922	resigned	5	65	1945	87
George Sutherland.....	England	1862	Protestant	Utah	Harding	1922	60	1938	retired	15	75	1942	80
Pierce Butler.....	Minn.	1866	Roman Catholic	Minn.	Harding	1923	56	1939	death	16	73	1939	73
Edward T. Sanford.....	Tenn.	1865	Episcopal	Tenn.	Harding	1923	57	1930	death	7	64	1930	64
Harlan F. Stone.....	N. H.	1872	Episcopal	N. Y.	Coolidge	1925	52	1941	promoted	16	68	1946	73
Owen J. Roberts.....	Pa.	1875	Episcopal	Pa.	Hoover	1930	55	1945	resigned	15	70	1955	80

Members of the Supreme Court of the United States (Contd.)

Name	Birth		Religious Affiliation (Source: ¹ Library of Congress)	Appointment		Oath Taken		Service Terminated			Death	
	Place	Date		From	President	Date	Age	Date	Cause	Years Served	Date	Age
Benjamin N. Cardozo.....	N. Y.	1870	Hebrew	N. Y.	Hoover	1932	61	1938	death	6	1938	68
Hugo L. Black.....	Ala.	1886	Baptist	Ala.	F. Roosevelt	1937	51	1938	death	1	1938	52
Stanley F. Reed.....	Ky.	1884	Protestant	Ky.	F. Roosevelt	1938	53	1957	retired	19	1957	73
Felix Frankfurter.....	Austria	1882	Hebrew	Mass.	F. Roosevelt	1939	56	1939	death	1	1939	57
William O. Douglas.....	Minn.	1898	Presbyterian	Conn.	F. Roosevelt	1939	40	1949	death	9	1949	59
Frank Murphy.....	Mich.	1890	Roman Catholic	Mich.	F. Roosevelt	1940	49	1942	resigned	1	1942	52
James F. Byrnes.....	S. C.	1879	Episcopal	S. C.	F. Roosevelt	1941	62	1942	death	1	1942	63
Robert H. Jackson.....	N. Y.	1892	Episcopal	N. Y.	F. Roosevelt	1941	49	1954	death	13	1954	62
Wiley B. Rutledge.....	Ky.	1894	Unitarian	Iowa	F. Roosevelt	1943	48	1949	death	6	1949	55
Harold H. Burton.....	Mass.	1888	Unitarian	Ohio	F. Roosevelt	1945	57	1958	retired	13	1958	70
Tom C. Clark.....	Tex.	1889	Presbyterian	Tex.	Truman	1949	49	1956	retired	7	1956	67
Sherman Minton.....	Ind.	1890	Protestant	Ind.	Truman	1949	58	1955	death	6	1955	65
John M. Harlan.....	Ill.	1839	Presbyterian	N. Y.	Eisenhower	1955	55	1956	death	1	1956	56
William J. Brennan, Jr.....	N. J.	1906	Roman Catholic	N. J.	Eisenhower	1956	50	1957	death	1	1957	51
Charles E. Whittaker.....	Kans.	1901	Methodist	Mo.	Eisenhower	1957	56	1959	death	2	1959	58
Potter Stewart.....	Mich.	1915	Episcopal	Ohio	Eisenhower	1959	44					

¹ Professing Christian, ² Unitarian, then Episcopal.
³ Unitarian or Congregational.

Impeachments

U. S. Constitution, Article I, Section 3.

The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and enjoy any Office of Honor, Trust, or Profit under the United States; but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Federal Impeachments

Source: Congressional Directory.

The Senate has sat as a court of impeachment in the following cases:

WILLIAM BLOUNT, Senator from Tennessee; charges dismissed for want of jurisdiction, January 14, 1799.

JOHN PICKERING, Judge of the U. S. District Court for New Hampshire; removed from office March 12, 1804.

SAMUEL CHASE, Associate Justice of the Supreme Court; acquitted March 1, 1805.

JAMES H. PECK, Judge of the U. S. District Court for Missouri; acquitted Jan. 31, 1831.

WEST H. HUMPHREYS, Judge of the United States District Court for the middle, eastern, and western districts of Tennessee; removed from office June 26, 1862.

ANDREW JOHNSON, President of the United States; acquitted May 26, 1868.

WILLIAM W. BELKNAP, Secretary of War; acquitted Aug. 1, 1876.

CHARLES SWAYNE, Judge of the United States District Court for the northern district of Florida; acquitted Feb. 27, 1905.

ROBERT W. ARCHBOLD, Associate Judge, United States Commerce Court; removed from office January 13, 1913.

GEORGE W. ENGLISH, Judge of the U. S. District Court for the eastern district of Illinois; resigned office November 4, 1926; impeachment proceedings dismissed.

HAROLD LOUDERBACK, Judge of the U. S. District Court for the northern district of California; acquitted May 24, 1933.

HALESTED L. KATZER, Judge of the U. S. District Court for the southern district of Florida; removed April 17, 1936.

SPEAKERS OF THE HOUSE OF REPRESENTATIVES

Source: Congressional Directory.

Name and state	Congress	Dates served	Name and state	Congress	Dates served
Frederick A. C. Muhlenberg (Pa.)	1	1789-1791	Galusha A. Grow (Pa.)	37	1861-1863
Jonathan Trumbull (Conn.)	2	1791-1793	Schuyler Colfax (Ind.)	38-40	1863-1869
Frederick A. C. Muhlenberg (Pa.)	3	1793-1795	Theodore M. Pomeroy (N. Y.) ⁵	40	1869-1869
Jonathan Dayton (N. J.) ¹	4-5	1795-1799	James G. Blaine (Maine)	41-43	1869-1875
Theodore Sedgwick (Mass.)	6	1799-1801	Michael C. Kerr (Ind.) ⁶	44	1875-1876
Nathaniel Macon (N. C.)	7-9	1801-1807	Samuel J. Randall (Pa.)	44-46	1876-1881
Joseph B. Varnum (Mass.)	10-11	1807-1811	J. Warren Keifer (Ohio)	47	1881-1883
Henry Clay (Ky.) ²	12-13	1811-1814	John G. Carlisle (Ky.)	48-50	1883-1889
Langdon Cheves (S. C.)	13	1814-1815	Thomas B. Reed (Maine)	51	1889-1891
Henry Clay (Ky.) ³	14-16	1815-1820	Charles F. Crisp (Ga.)	52-53	1891-1895
John W. Taylor (N. Y.)	16	1820-1821	Thomas B. Reed (Maine)	54-55	1895-1899
Philip P. Barbour (Va.)	17	1821-1823	David B. Henderson (Iowa)	56-57	1899-1903
Henry Clay (Ky.)	18	1823-1825	Joseph G. Cannon (Ill.)	58-61	1903-1911
John W. Taylor (N. Y.)	19	1825-1827	Champ Clark (Mo.)	62-65	1911-1919
Andrew Stevenson (Va.) ⁴	20-23	1827-1834	Frederick H. Gillett (Mass.)	66-68	1919-1925
John Bell (Tenn.)	23	1834-1835	Nicholas Longworth (Ohio)	69-71	1925-1931
James K. Polk (Tenn.)	24-25	1835-1839	John N. Garner (Tex.)	72	1931-1933
Robert M. T. Hunter (Va.)	26	1839-1841	Henry T. Rainey (Ill.) ⁷	73	1933-1934
John White (Ky.)	27	1841-1843	Joseph W. Byrns (Tenn.) ⁸	74	1935-1936
John W. Jones (Va.)	28	1843-1845	William B. Bankhead (Ala.) ⁹	74-76	1936-1940
John W. Davis (Ind.)	29	1845-1847	Sam Rayburn (Tex.)	76-79	1940-1947
Robert C. Winthrop (Mass.)	30	1847-1849	Joseph W. Martin, Jr. (Mass.)	80	1947-1949
Howell Cobb (Ga.)	31	1849-1851	Sam Rayburn (Tex.)	81-82	1949-1953
Linn Boyd (Ky.)	32-33	1851-1855	Joseph W. Martin, Jr. (Mass.)	83	1953-1955
Nathaniel P. Banks (Mass.)	34	1855-1857	Sam Rayburn (Tex.)	84-	1955-
James L. Orr (S. C.)	35	1857-1859			
Wm. Pennington (N. J.)	36	1859-1861			

¹ George Dent (Md.) was elected Speaker pro tempore for Apr. 20 and May 28, 1798. ² Resigned during 2d session of 13th Congress. ³ Resigned between 1st and 2d sessions of 16th Congress. ⁴ Resigned during 1st session of 23d Congress. ⁵ Elected Speaker and served the day of adjournment. ⁶ Died between 1st and 2d sessions of 44th Congress. During 1st session, there were two Speakers pro tempore: Samuel S. Cox (N. Y.), appointed for Feb. 17, May 12 and June 19, 1876, and Milton Saylor (Ohio), appointed for June 4, 1876. ⁷ Died 1934 after adjournment of 2nd session of 73rd Congress. ⁸ Died during 2d session of 74th Congress. ⁹ Died during 3d session of 76th Congress.

The White House

Source: National Park Service.

The White House, the official residence of the President, is located on Pennsylvania Avenue in Washington, D. C. The site covering about 18 acres was selected by President Washington and Pierre Charles L'Enfant, and the architect was James Hoban. The design of the mansion is said to have been suggested by the Duke of Leinster's Palace in Ireland. The cornerstone was laid Oct. 13, 1792, and the first residents were President and Mrs. John Adams in Nov., 1800. The building was fired by the British in 1814.

The sandstone exterior was painted white during the course of construction.

The rooms for public functions are on the first floor; on the second and third are the President's apartments. The most celebrated public room is the East Room, where formal receptions take place. Other public rooms are the Red Room, the Green Room, and the

Blue Room. The State Dining Room is used for formal dinners.

The Executive Office, a three-story structure at the west end of the West Terrace, was added to the original building in 1902 to accommodate the President's office staff, and several additions have since been made. In 1942, a three-story building was erected at the end of the East Terrace, and now serves as the White House main entrance. In 1946, a second-story balcony was added to the White House inside the Ionic pillars of the south portico.

From Nov., 1948, to Mar., 1952, the White House was closed for social engagements and sightseers because of a full-scale renovation of the building. The walls were retained and strengthened, and the interior was rebuilt. There are now 132 rooms instead of the former 62.

The Cairo Conference

Important provisions of the Conference, which was held Nov. 22-26, 1943:

The several military missions have agreed upon future military operations against Japan. The Three Great Allies expressed their resolve to bring unrelenting pressure against their brutal enemies by sea, land, and air. This pressure is already rising.

The Three Great Allies are fighting this war to restrain and punish the aggression of Japan. They covet no gain for themselves and have no thought of territorial expansion. It is their purpose that Japan shall be stripped of all the islands in the Pacific which she has seized or occupied since the beginning of the first World War

in 1914, and that all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China. Japan will also be expelled from all other territories which she has taken by violence and greed. The aforesaid Three Great Powers, mindful of the enslavement of the people of Korea, are determined that in due course Korea shall become free and independent.

With these objectives in view the three Allies, in harmony with those of the United Nations at war with Japan, will continue to persevere in the serious and prolonged operations necessary to procure the unconditional surrender of Japan.

The Teheran Conference

(Nov. 28-Dec. 1, 1943)

The President of the United States of America, the Premier of the Union of Soviet Socialist Republics, and the Prime Minister of the United Kingdom have consulted with each other and, with the Prime Minister of Iran, desire to declare the mutual agreement of their three Governments regarding relations with Iran.

The Governments of the United States of America, the Union of Soviet Socialist Republics, and the United Kingdom recognize the assistance which Iran has given in the prosecution of the war against the common enemy, particularly by facilitating transportation of supplies from overseas to the Soviet Union. The three Governments realize that the war has caused special economic difficulties for Iran and they are agreed that they will continue to make available to the Government of Iran such economic assistance as may be possible, having regard to the heavy demands made upon them by their worldwide military operations and to the worldwide shortage of transport, raw materials, and supplies for civilian consumption.

With respect to the post-war period, the Governments of the United States of America, the Union of Soviet Socialist Republics, and the United Kingdom are in accord with the Government of Iran that any economic problem confronting Iran at the close of hostilities should receive full consideration along with those of the other members of the United Nations by conferences or international agencies held or created to deal with international economic matters.

The Governments of the United States of America, the Union of Soviet Socialist Republics, and the United Kingdom are at one with the Government of Iran in their desire for the maintenance of the independence, sovereignty, and territorial integrity of Iran. They count upon the participation of Iran together with all other peace-loving nations in the establishment of international peace, security, and prosperity after the war in accordance with the principles of the Atlantic Charter, to which all four governments have continued to subscribe.

The Yalta Conference

Important provisions of the Conference, which was held Feb. 4-11, 1945:

The Occupation and Control of Germany

We have agreed on common policies and plans for enforcing the unconditional surrender terms which we shall impose together on Nazi Germany after German armed resistance has been finally crushed. These terms will not be made known until the final defeat of Germany has been accomplished. Under the agreed plan, the forces of the three powers will each occupy a separate zone of Germany. Coordinated administration and control has been provided for under the plan through a central Control Commission, consisting of

the supreme commanders of the three powers, with headquarters in Berlin. It has been agreed that France should be invited by the three powers, if she should so desire, to take over a zone of occupation, and to participate as a fourth member of the Control Commission. The limits of the French zone will be agreed upon by the four Governments concerned through their representatives on the European Advisory Commission.

It is our inflexible purpose to destroy German militarism and nazism and to ensure that Germany will never again be able to disturb the peace of the world. We are determined to disarm and disband all

German armed forces; break up for all time the German General Staff that has repeatedly contrived the resurgence of German militarism; remove or destroy all German military equipment; eliminate or control all German industry that could be used for military production; bring all war criminals to just and swift punishment and exact reparation in kind for the destruction wrought by the Germans; wipe out the Nazi Party, Nazi laws, organizations, and institutions, remove all Nazi and militarist influences from public office and from the cultural and economic life of the German people; and take in harmony such other measures in Germany as may be necessary to the future peace and safety of the world. It is not our purpose to destroy the people of Germany, but only when nazism and militarism have been extirpated will there be hope for a decent life for Germans, and a place for them in the comity of nations.

Terms Under Which Russia Entered the War Against Japan

The leaders of the Three Great Powers—the Soviet Union, the United States of America, and Great Britain—have agreed that in two or three months after Germany has surrendered and the war in Europe has terminated the Soviet Union shall enter into the war against Japan on the side of the Allies on condition that:

1. The status quo in Outer Mongolia (The Mongolian People's Republic) shall be preserved;
2. The former rights of Russia violated by the treacherous attack of Japan in 1904 shall be restored, viz.:

(a) the southern part of Sakhalin as well as all the islands adjacent to it shall be returned to the Soviet Union,

(b) the commercial port of Dairen shall be internationalized, the preeminent interests of the Soviet Union in this port being safeguarded and the lease of Port Arthur as a naval base of the U.S.S.R. restored,

(c) the Chinese-Eastern Railroad and the South-Manchurian Railroad which provides an outlet to Dairen shall be jointly operated by the establishment of a joint Soviet-Chinese Company, it being understood that the preeminent interests of the Soviet Union shall be safeguarded and that China shall retain full sovereignty in Manchuria;

3. The Kurile Islands shall be handed over to the Soviet Union.

It is understood that the agreement concerning Outer Mongolia and the ports and railroads referred to above will require concurrence of Generalissimo Chiang Kai-shek. The President will take measures in order to obtain this concurrence on advice from Marshal Stalin.

The Heads of the Three Great Powers have agreed that these claims of the Soviet Union shall be unquestionably fulfilled after Japan has been defeated.

For its part the Soviet Union expresses its readiness to conclude with the National Government of China a pact of friendship and alliance between the U.S.S.R. and China in order to render assistance to China with its armed forces for the purpose of liberating China from the Japanese yoke.

The Potsdam Declaration

Text of the declaration issued at Potsdam, Germany, July 26, 1945, outlining the terms under which Japan would be allowed to surrender:

1. We, the President of the United States, the President of the national government of the Republic of China, and the Prime Minister of Great Britain, representing the hundreds of millions of our countrymen, have conferred and agreed that Japan shall be given the opportunity to end this war.

2. The prodigious land, sea, and air forces of the United States, the British Empire, and China, many times reinforced by their armies and air fleets from the west, are poised to strike the final blow at Japan. This military power is sustained and inspired by the determination of all allied nations to prosecute the war against Japan until she ceases to resist.

3. The result of the futile and senseless German resistance to the might of the aroused free peoples of the world stands forth in awful clarity as an example to the people of Japan.

The might that now converges on Japan is immeasurably greater than that which, when applied to the resisting Nazis, necessarily laid waste to the land, the industry, and the method of life of the whole German people.

The full application of our military power, backed by our resolve, will mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.

4. The time has come for Japan to decide whether she will continue to be controlled by these self-willed militaristic advisers whose unintelligent calculations have brought the empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.

5. The following are our terms: we will not deviate from them; there are no alternatives; we shall brook no delay.

6. There must be eliminated for all time the authority and influence of those

who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security, and justice will be impossible until irresponsible militarism is driven from the world.

7. Until such a new order is established and until there is convincing proof that Japan's war-making power is destroyed, points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.

8. The terms of the Cairo declaration shall be carried out and Japanese sovereignty shall be limited to the Islands of Honshu, Hokkaido, Kyushu, Shikoku, and such minor islands as we determine.

9. Japanese military forces after being completely disarmed shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.

10. We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners.

The Japanese government shall remove all obstacles to the revival and strengthening

of democratic tendencies among the Japanese people. Freedom of speech and religion and of thought, as well as respect for the fundamental human rights, shall be established.

11. Japan shall be permitted to maintain such industries as will sustain her economy and permit the payment of just reparation in kind, but not those industries which will enable her to rearm for war.

To this end, access to, as distinguished from control of, raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.

12. The occupying forces of the Allies shall be withdrawn from Japan as soon as these objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.

13. We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

North Atlantic Treaty

Signed at Washington, D.C., April 4, 1949

The Parties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments.

They are determined to safeguard the freedom, common heritage, and civilization of their peoples, founded on the principles of democracy, individual liberty, and the rule of law.

They seek to promote stability and well-being in the North Atlantic area.

They are resolved to unite their efforts for collective defense and for the preservation of peace and security.

They therefore agree to this North Atlantic Treaty:

Article 1

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security, and justice, are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

Article 2

The Parties will contribute toward the further development of peaceful and friendly international relations by strength-

ening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.

Article 3

In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack.

Article 4

The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence, or security of any of the Parties is threatened.

Article 5

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith,

individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

Article 6

For the purpose of Article 5 an armed attack on one or more of the Parties is deemed to include an armed attack on the territory of any of the Parties in Europe or North America, on the Algerian departments of France, on the occupation forces of any Party in Europe, on the islands under the jurisdiction of any Party in the North Atlantic area north of the Tropic of Cancer, or on the vessels or aircraft in this area of any of the Parties.

Article 7

This Treaty does not affect, and shall not be interpreted as affecting, in any way the rights and obligations under the Charter of the Parties which are members of the United Nations, or the primary responsibility of the Security Council for the maintenance of international peace and security.

Article 8

Each Party declares that none of the international engagements now in force between it and any other of the Parties or any third state is in conflict with the provisions of this Treaty, and undertakes not to enter into any international engagement in conflict with this Treaty.

Article 9

The Parties hereby establish a council, on which each of them shall be represented, to consider matters concerning the implementation of this Treaty. The council shall be so organized as to be able to meet promptly at any time. The council shall set up such subsidiary bodies as may be necessary; in particular it shall establish immediately a defense committee which shall recommend measures for the implementation of Articles 3 and 5.

Article 10

The Parties may, by unanimous agreement, invite any other European state in a position to further the principles of this

Treaty and to contribute to the security of the North Atlantic area to accede to this Treaty. Any state so invited may become a party to the Treaty by depositing its instrument of accession with the Government of the United States of America. The Government of the United States of America will inform each of the Parties of the deposit of each such instrument of accession.

Article 11

This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes. The instruments of ratification shall be deposited as soon as possible with the Government of the United States of America, which will notify all the other signatories of each deposit. The Treaty shall enter into force between the states which have ratified it as soon as the ratifications of the majority of the signatories, including the ratifications of Belgium, Canada, France, Luxemburg, the Netherlands, the United Kingdom, and the United States, have been deposited and shall come into effect with respect to other states on the date of the deposit of their ratifications.

Article 12

After the Treaty has been in force for ten years, or at any time thereafter, the Parties shall, if any of them so requests, consult together for the purpose of reviewing the Treaty, having regard for the factors then affecting peace and security in the North Atlantic area, including the development of universal as well as regional arrangements under the Charter of the United Nations for the maintenance of international peace and security.

Article 13

After the Treaty has been in force for twenty years, any Party may cease to be a party one year after its notice of denunciation has been given to the Government of the United States of America, which will inform the Governments of the other Parties of the deposit of each notice of denunciation.

Article 14

This Treaty, of which the English and French texts are equally authentic, shall be deposited in the archives of the Government of the United States of America. Duly certified copies thereof will be transmitted by that Government to the Governments of the other signatories.

Tripartite Security Treaty (United States, Australia, New Zealand)

Major provisions of the Tripartite agreement signed on Sept. 1, 1951, at San Francisco:

1. The parties undertake to settle by peaceful means any international disputes in which they may be involved.

2. The parties will maintain and develop their individual and collective capacity to resist armed attack.

3. The parties will consult together whenever the territorial integrity, political

independence or security of any of the parties is threatened in the Pacific.

4. Each party recognizes that an armed attack in the Pacific area on either of the other parties would be dangerous to its own peace and safety.

A Defense Treaty similar in its provisions to the Tripartite Security Treaty was signed by the United States and the Philippines in Washington, D. C., Aug 30, 1951.

United States-Japanese Treaty

Main provisions of the U. S.-Japanese Security Treaty signed at San Francisco on Sept. 8, 1951:

1. Japan grants and the U. S. accepts the right to dispose U. S. land, air, and sea forces in and about Japan. Such forces may be utilized to contribute to the maintenance of international peace and security in the Far East and to the security of Japan against armed attack from without, including assistance given at the express request of the Japanese government to put down large scale riots and disturbances in Japan caused through instigation or intervention by an outside power or powers.

5. The parties hereby establish a council, consisting of their foreign ministers or their deputies, to consider matters concerning the implementation of this treaty.

6. This treaty shall remain in force indefinitely.

2. Japan will not grant without the prior consent of the U. S. any bases or any rights, powers, or authority whatsoever relating to bases, or the right of garrison or maneuver or transit of ground, air, or naval forces of any third power.

3. This treaty shall expire whenever in the opinion of the governments of the U. S. and of Japan, U. N. arrangements or alternate individual or collective dispositions satisfactorily provide for the maintenance of international peace and security in the Japan area.

Japanese Peace Treaty

The Japanese Peace Treaty was signed at San Francisco on September 8, 1951, by 49 nations; the U.S.S.R., Poland, and Czechoslovakia were present but refused to sign. Among the major provisions of the treaty are the following:

Peace: The state of war between Japan and the Allies is terminated.

Sovereignty: Japan's full sovereignty is recognized as is its right to apply for U. N. membership.

Territory: Japan recognizes the independence of Korea; renounces all rights, titles, or claims to Formosa, the Pescadores, the Kuriles, Sakhalin, the Pacific islands formerly under mandate to Japan, the Antarctic area, Spratly Island, and the Paracels.

Japan agrees to U. N. trusteeship over the Ryukyu and Daito Islands, the Bonins, Rosario Island, the Volcano Islands, Parece Vela, and Marcus Island. Disposition of Japanese property on these islands is to be negotiated by Japan and the administering authorities.

Security: Japan agrees to settle its international disputes peaceably, to refrain from the threat of or the use of force and to abide by the principles of the U. N.

All occupation forces are to be withdrawn as soon as possible but not later than 90 days after a majority of the sig-

natory countries have given notice of ratification of this treaty. Nothing in this provision shall, however, prevent the stationing or retention of foreign armed forces in Japanese territory by agreement with one or more of the Allies.

Political-Economic Clauses: Japan may enter into fisheries treaties; may negotiate most-favored-nation trade and maritime treaties with the Allies; renounces all special rights and interests in China.

Japan accepts the judgments of the International Military Tribunal and Allied War Crimes Courts.

Claims and Property: Japan recognizes its responsibility to pay reparations but the Allies recognize its limited economic capacity; therefore, Japan shall pay through goods to be manufactured in Japan from raw materials provided by the victimized nations and by services. The Allies may retain certain properties seized from Japan but require the latter to return their properties within 6 months. Japan recognizes Allied industrial, literary, and artistic property rights. It agrees to indemnify prisoners of war who suffered unduly but renounces similar claims against the Allies.

Settlement of Disputes: Any disagreements arising out of the interpretation of this treaty and not otherwise settled shall be submitted to the International Court of Justice.

(For treaties not listed here, see index.)

MAJOR U. S. POSTWAR POLICY DECISIONS

The Marshall Plan

After World War II, recovery programs among the nations of Europe, as well as contributions from the United States, were un-co-ordinated. In June, 1947, Gen. George C. Marshall, then Secretary of State, asserted the need for integrated recovery efforts against "hunger, poverty, desperation, and chaos." Congress, in April, 1948, appropriated \$5.4 billion. The United States established the Economic Cooperation Administration while European nations set up the Organization for European Economic Administration. Under a system of counterpart funds, each participating government set aside, in its own currency, amounts matching the aid it received. As the European Recovery Program, Marshall Plan aid was economic in its early stages but with the worsening international situation—particularly after Korea—emphasis was shifted to rearmament. When ERP ended in Dec., 1951, a year ahead of schedule, it had cost \$11 billion, but substantial amounts had been committed to collateral military ventures.

Truman Doctrine

President Truman took a decisive step in March, 1947, when he obtained from Congress authorization to spend \$400 million to aid Greece and Turkey. His move followed directly on withdrawal of aid to those countries by Great Britain, whose

resources were dwindling. Greece suffered from Communist guerrilla infiltration; Turkey lived under threat of Russia's constant pressures. Besides the appropriation, Congress authorized shipment of military equipment and dispatch of a military and technical mission. By 1950, the Red guerrillas had given up the struggle, and in Turkey results were much more immediately successful. The Truman Doctrine is regarded as the first significant experiment in the policy of "containment," although it preceded by four months the intellectual presentation of this policy by George Kennan.

Eisenhower Doctrine

In January, 1957, President Eisenhower, noting the unsettled state of the Middle East, asked authority from Congress to co-operate with any nation in that area for economic development, to undertake programs of military assistance for such nations which desired it and to use U. S. armed forces to protect Mid-East countries "requesting such aid" against "overt armed aggression from any nation controlled by international communism." In March, Congress authorized expenditures up to \$200 million for 1957. Anti-Communist declarations were immediately forthcoming from Lebanon and Libya; and, more important, King Hussein of Jordan took a strong stand against the leftist drift in his country. Arms also were shipped to the area to counter the build-up of Soviet military equipment in Syria.

U. S. POSTWAR TREATIES

North Atlantic Treaty Organization (NATO)

(Formed: April 4, 1949)

Members: United States, Canada, Iceland, Norway, Great Britain, Netherlands, Denmark, Belgium, Luxemburg, Portugal, France, Italy, Greece, Turkey, West Germany

In 1948, the United States government began talks with the signers of the Brussels Pact and Canada concerning the formation of a regional defense treaty in the North Atlantic area. It represented the first important security pact with European nations since the French Alliance of 1778 and marked the first time in United States history that the United States pledged itself to go to war in support of allies before the

actual outbreak of hostilities. The U. S. Senate ratified the treaty July 21, 1949.

The United States, acting under Article 3 of the Treaty, began a program of military assistance which at the end of the fiscal year 1959 amounted to over \$10 billion. Roughly half of all United States military assistance has gone to members of NATO. However, approximately 85% of NATO's military preparation has come from the European countries themselves.

NATO now united most of the countries of the Atlantic community plus Greece, Turkey, and West Germany, which were added to the original membership. Its organization comprises the top foreign, economic, defense, and financial ministers of the member countries. The military responsibilities of NATO are divided into two major commands—SHAPE for Europe and SACLAN for the Atlantic Ocean area.

Western European Integration

Members: France, Italy, West Germany, Belgium, Netherlands, Luxemburg

The first step in this gradual process came in 1944 when Belgium, the Netherlands, and Luxemburg formed the Benelux Customs Union. Next, sixteen Western European nations created in 1948 the Organization for European Economic Co-operation (OEEC), to reduce import limitations and advance convertibility of currencies through the European Payments Union. Then followed establishment of the European Coal and Steel Community (1952), by which France, Italy, and West Germany erected a supranational organization, which has set up a common market in coal and steel. These successes led to creation by the same six nations, in March, 1957, of Euromarket, to stimulate trade by eliminating customs barriers, creating common tariffs, cutting exchange restrictions, etc., and of Euratom, an atomic energy pool.

Southeast Asia Treaty Organization (SEATO)

(Signed: Sept., 1954)

Members: United States, Great Britain, France, Australia, New Zealand, Pakistan, Thailand, Philippines

Weaker than NATO, SEATO does not include rigid provisions for collective defense but states that armed attack on any member would be regarded as a threat to safety of the others. SEATO represents the United States' desire to counterbalance the power of Communist China. Yet three major non-Communist countries—Indonesia, Burma, and India—are not members.

Anzus Treaty

(Effective 1952)

Members: Australia, New Zealand, United States

This security treaty involves a commitment less comprehensive than that of NATO and closer to the SEATO obligations. Article 3 stipulates that the parties will consult whenever in the opinion of any of them the territorial integrity, political independence, or security of any of the parties is threatened in the Pacific. Under Article 4, each party recognizes that an armed attack in the Pacific area on any of the parties would be considered dangerous to its own peace and safety, and agrees to act to meet the common danger in accordance with its constitutional processes.

Central Treaty Organization (CENTO) (Formerly Baghdad Pact)

(Signed: Nov., 1955)

Members: Turkey, Iran, Great Britain, Pakistan, United States. (Another original member, Iraq, withdrew in Mar., 1959. The U. S. gradually became a member.)

Although it inspired the pact, the U. S. did not become a full member until July 28, 1958, shortly after the revolutionary coup in Iraq, which threatened the collapse of the Baghdad Pact. The pact's purpose continues to be that of providing a defense shield on the northern tier of the Middle East against Soviet penetration. The headquarters were transferred in Oct., 1958, from Baghdad to Ankara, and the name was changed from Baghdad Pact to Central Treaty Organization in Aug., 1959.

Organization of American States (OAS) and the Rio Treaty

In Sept., 1947, eighteen Latin American countries (Nicaragua and Ecuador were excluded) and the United States signed at Rio de Janeiro the Rio Treaty under which all signatories agreed to protect against aggression every state in the Western Hemisphere. In Apr., 1948, all the American nations (twenty-one—Canada not included) joined in the Organization of American States (OAS) to implement the Rio Treaty and form a collective security system.

Reds' "NATO"—Warsaw Pact

(Signed: May 14, 1955)

Members: Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania, U.S.S.R.

The Warsaw Pact was prompted by the admission of Western Germany to NATO and may be considered as the Communist equivalent in Eastern Europe to NATO in Western Europe. Article 4 of the agreement contains the same provisions as Article 5 of NATO, stating that an attack on one shall be regarded as an attack on all. Article 5 provides for a unified military command.

(See also index for Headline History listing events of 1917-58.)

THE DECLARATION OF INDEPENDENCE

IN CONGRESS, JULY 4, 1776

THE UNANIMOUS DECLARATION of the thirteen united STATES of AMERICA.

WHEN in the Course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.—That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed,—That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security.—Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

He has refused his Assent to Laws, the most wholesome and necessary for the public good.

He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their Public Records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the Legislative Powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the mean time exposed to all the dangers of invasion from without, and convulsions within.

NOTE: On April 12, 1776, the legislature of North Carolina authorized its delegates to the Continental Congress to join with others in a declaration of separation from Great Britain; the first colony to instruct its delegates to take the actual initiative was Virginia on May 15. On June 7, 1776, Richard Henry Lee of Virginia offered a resolution to the Congress to the effect "that these United Colonies are, and of right ought to be, free and independent States. . . ." A committee, consisting of Thomas Jefferson, John Adams, Benjamin Franklin, Robert R. Livingston, and Roger

Sherman was organized to "prepare a declaration to the effect of the said first resolution." The Declaration of Independence was adopted on July 4, 1776.

Most delegates signed the Declaration August 2, but George Wythe (Va.) signed August 27; Richard Henry Lee (Va.), Elbridge Gerry (Mass.), and Oliver Wolcott (Conn.) in September; Matthew Thornton (N. H.), not a delegate until September, in November; and Thomas McKean (Del.), although present on July 4, not until 1781 by special permission, having served in the army in the interim.

He has endeavoured to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary Powers.

He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of New Offices, and sent hither swarms of Officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, Standing Armies without the Consent of our Legislatures.

He has affected to render the Military independent of and superior to the Civil Power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation:

For quartering large bodies of armed troops among us:

For protecting them, by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States:

For cutting off our Trade with all parts of the world:

For imposing Taxes on us without our Consent:

For depriving us in many cases, of the benefits of Trial by Jury:

For transporting us beyond Seas to be tried for pretended offences:

For abolishing the free System of English Laws in a neighbouring Province, establishing therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies:

For taking away our Charters, abolishing our most valuable Laws and altering fundamentally the Forms of our Governments:

For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated Government here, by declaring us out of his Protection and waging War against us.

He has plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people.

He is at this time transporting large Armies of foreign Mercenaries to compleat the works of death, desolation and tyranny, already begun with circumstances of Cruelty & Perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the Head of a civilized nation.

He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the executioners of their friends and Brethren, or to fall themselves by their Hands.

He has excited domestic insurrections amongst us, and has endeavoured to bring on the inhabitants of our frontiers, the merciless Indian Savages, whose known rule of warfare, is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these Oppressions We have Petitioned for Redress in the most humble terms: Our repeated Petitions have been answered only by repeated injury. A Prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people.

Nor have We been wanting in attentions to our Brittish brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.

WE, THEREFORE, the Representatives of the UNITED STATES OF AMERICA, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by Authority of the good People of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be

FREE AND INDEPENDENT STATES; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as Free and Independent States, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do.—And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes and our sacred Honor.

JOHN HANCOCK.

New Hampshire.

Josiah Bartlett,
Wm. Whipple,
Matthew Thornton.

Rhode Island.

Step. Hopkins,
William Ellery.

Connecticut.

Roger Sherman,
Sam'l Huntington,
Wm. Williams,
Oliver Wolcott.

New York.

Wm. Floyd,
Phil. Livingston,
Frans. Lewis,
Lewis Morris.

New Jersey.

Richd. Stockton,
Jno. Witherspoon,
Fras. Hopkinson,
John Hart,
Abra. Clark.

Pennsylvania.

Robt. Morris,
Benjamin Rush,
Benj. Franklin,
John Morton,
Geo. Clymer,
Jas. Smith,
Geo. Taylor,
James Wilson,
Geo. Ross.

Massachusetts-Bay.

Saml. Adams,
John Adams,
Robt. Treat Palne,
Elbridge Gerry.

Delaware.

Caesar Rodney,
Geo. Read,
Tho. M'Kean.

Maryland.

Samuel Chase,
Wm. Paca,
Thos. Stone,
Charles Carroll of Carrollton.

Virginia.

George Wythe,
Richard Henry Lee,
Th. Jefferson,
Benj. Harrison,
Ths. Nelson, Jr.,
Francis Lightfoot Lee,
Carter Braxton.

North Carolina.

Wm. Hooper,
Joseph Hewes,
John Penn.

South Carolina.

Edward Rutledge,
Thos. Heyward, Junr.,
Thomas Lynch, Junr.,
Arthur Middleton.

Georgia.

Button Gwinnett,
Lyman Hall,
Geo. Walton.

IN CONGRESS

JANUARY, 18, 1777.

Ordered:

That an authenticated copy of the Declaration of Independency, with the names of the Members of Congress subscribing the same, be sent to each of the United States, and that they be desired to have the same put on record.

By order of Congress.

Attest, CHAS. THOMSON, *Secy.* A true copy. JOHN HANCOCK, *Presidt.*

The Statue of Liberty

The Statue of Liberty ("Liberty Enlightening the World") is a 225-ton copper female figure, 152 ft. in height, facing the ocean from Liberty* Island in New York Harbor. The right hand holds aloft a torch, and the left hand carries a tablet upon which is inscribed: "July 4, 1776."

The statue was designed by Frédéric Auguste Bartholdi, at the request of the Franco-American Union, as a present to the U. S. to commemorate the centennial of American independence. It cost \$250,000.

The pedestal, almost 150 ft. in height, was erected by the U. S., and its cost of nearly \$300,000 was met by popular subscription in this country. The cornerstone

* Called Bedloe's Island prior to 1956.

was laid Aug. 5, 1884, and the unveiling of the statue took place Oct. 28, 1886.

On a tablet inside the pedestal is engraved the following sonnet, written by Emma Lazarus:

The New Colossus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon hand
Glow world-wide welcome; her mild eyes com-
mand
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door."

CONSTITUTION of the UNITED STATES OF AMERICA

THE oldest federal constitution in existence was framed by a convention of delegates from twelve of the thirteen original states in Philadelphia in May, 1787, Rhode Island failing to send a delegate. George Washington presided over the session, which lasted until September 17, 1787. The draft (originally a preamble and seven Articles) was submitted to all thirteen states and was to become effective when ratified by nine states. It went into effect on the first Wednesday in March, 1789, having been ratified by New Hampshire, the ninth state to approve, on June 21, 1788. The states ratified the Constitution in the following order:

Delaware	December 7, 1787	South Carolina	May 23, 1788
Pennsylvania	December 12, 1787	New Hampshire	June 21, 1788
New Jersey	December 18, 1787	Virginia	June 25, 1788
Georgia	January 2, 1788	New York	July 26, 1788
Connecticut	January 9, 1788	North Carolina	November 21, 1789
Massachusetts	February 6, 1788	Rhode Island	May 29, 1790
Maryland	April 28, 1788		

Outline of the Constitution

ARTICLE I

SEC. 1. Legislative powers; in whom vested.

SEC. 2. House of Representatives, how and by whom chosen—Qualifications of a Representative—Representatives and direct taxes, how apportioned—Enumeration—Vacancies to be filled—Power of choosing officers, and of impeachment.

SEC. 3. Senators, how and by whom chosen—How classified—State Executive, when to make temporary appointments, in case, etc.—Qualifications of a Senator—President of the Senate, his right to vote—President pro tem., and other officers of the Senate, how chosen—Power to try impeachments—When President is tried, Chief Justice to preside—Sentence.

SEC. 4. Times, etc., of holding elections, how prescribed—At least one Session in each year.

SEC. 5. Membership—Quorum—Adjournments—Rules—Power to punish or expel—Journal—Time of adjournments, how limited, etc.

SEC. 6. Compensation—Privileges—Disqualification in certain cases.

SEC. 7. House to originate all revenue bills—Veto—Bill may be passed by two-thirds of each house, notwithstanding, etc.—Bill, not returned in ten days, to become a law—Provisions as to orders, concurrent resolutions, etc.

SEC. 8. Powers of Congress.

SEC. 9. Provision as to migration or importation of certain persons—Habeas Corpus—Bills of attainder, etc.—Taxes, how apportioned—No export duty—No commercial preference—Money, how drawn from treasury, etc.—No titular nobility—Officers not to receive presents, etc.

SEC. 10. States prohibited from the exercise of certain powers.

ARTICLE II

SEC. 1. President; his term of office—Electors of President; number and how appointed—Electors to vote on same day—Qualification of President—On whom his duties devolve in case of his removal, death, etc.—President's compensation—His oath of office.

SEC. 2. President to be commander in chief—He may require opinions of Cabinet Officers, etc., may pardon—Treaty-making power—Nomination of certain officers—When President may fill vacancies.

SEC. 3. President shall communicate to Congress—He may convene and adjourn Congress, in case of disagreement, etc.—Shall receive ambassadors, execute laws, and commission officers.

SEC. 4. All civil offices forfeited for certain crimes.

ARTICLE III

SEC. 1. Judicial powers—Tenure—Compensation.

SEC. 2. Judicial power; to what cases it extends—Original jurisdiction of Supreme Court—Appellate—Trial by jury, etc.—Trial, where.

SEC. 3. Treason defined—Proof of—Punishment of.

ARTICLE IV

SEC. 1. Each State to give credit to the public acts, etc., of every other State.

SEC. 2. Privileges of citizens of each State—Fugitives from justice to be delivered up—Persons held to service having escaped, to be delivered up.

SEC. 3. Admission of new States—Power of Congress over territory and other property.

SEC. 4. Republican form of government guaranteed—Each State to be protected.

ARTICLE V

Constitution; how amended—Proviso.

ARTICLE VI

Certain debts, etc., declared valid—Supremacy of Constitution, treaties, and laws of the United States—Oath to support Constitution, by whom taken—No religious test.

ARTICLE VII

What ratification shall establish Constitution.

AMENDMENTS

- I. Religious establishment prohibited—Freedom of speech, of the press, and right to petition.
- II. Right to keep and bear arms.
- III. No soldier to be quartered in any house, unless, etc.
- IV. Right of search and seizure regulated.
- V. Provisions concerning prosecution, trial, and punishment—Private property not to be taken for public use, without compensation.
- VI. Further provision respecting criminal prosecutions.
- VII. Right of trial by jury secured.

VIII. Excessive bail or fines and cruel punishments prohibited.

IX. Rule of construction of Constitution.

X. Same subject; rights of States.

XI. Same subject; judicial powers construed.

XII. Manner of choosing President and Vice President.

XIII. Slavery abolished.

XIV. Citizenship; representation—Public debt.

XV. Right of suffrage—By whom exercised.

XVI. Taxes on incomes.

XVII. Election of Senators—Filling of vacancies.

XVIII. Prohibition.

XIX. Suffrage; not to be denied because of sex.

XX. Commencement of terms of President, Vice President, and members of Congress; time of assembling of Congress.

XXI. Repeal of Prohibition.

XXII. No person to serve as President for more than two terms.

The Constitution of the United States of America

PREAMBLE.—WE THE PEOPLE of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I

Section 1

Legislative powers vested in Congress.—All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2

Composition of the House of Representatives.—1. The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Qualifications of Representatives.—2. No Person shall be a Representative who shall not have attained to the Age of twenty-five Years, and been seven Years a Citizen

of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Apportionment of Representatives and direct taxes—census.*—3. [Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons.] The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

Filling of vacancies in representation.—

4. When vacancies happen in the Representation from any State, the Executive

* The clause included in brackets is amended by the 14th Amendment, Section 2.

Authority thereof shall issue Writs of Election to fill such Vacancies.

Selection of officers; power of impeachment.—5. The House of Representatives shall choose their Speaker and other Officers; and shall have the sole Power of Impeachment.

Section 3*

The Senate.—[1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six Years; and each Senator shall have one Vote.]

Classification of Senators; filling of vacancies.—2. Immediately after they shall be assembled in Consequence of the first Election, they shall be divided as equally as may be into three Classes. The Seats of the Senators of the first Class shall be vacated at the Expiration of the second Year, of the second Class at the Expiration of the fourth Year, and of the third Class at the Expiration of the sixth Year, so that one-third may be chosen every second Year; and if Vacancies happen by Resignation, or otherwise, during the Recess of the Legislature of any State, the Executive thereof may make temporary Appointments [until the next Meeting of the Legislature, which shall then fill such Vacancies].

Qualification of Senators.—3. No Person shall be a Senator who shall not have attained to the Age of thirty Years, and been nine Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State for which he shall be chosen.

Vice President to be President of Senate.—4. The Vice President of the United States shall be President of the Senate, but shall have no Vote, unless they be equally divided.

Selection of Senate officers; President pro tempore.—5. The Senate shall choose their other Officers, and also a President pro tempore, in the Absence of the Vice President, or when he shall exercise the Office of President of the United States.

Senate to try impeachments.—6. The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in cases of impeachment.—7. Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and en-

joy any Office of honor, Trust, or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Section 4

Control of congressional elections.—1. The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of choosing Senators.

Time for assembling of Congress.†—2. The Congress shall assemble at least once in every Year, and such Meeting shall be on the first Monday in December, unless they shall by Law appoint a different Day.

Section 5

Each house to be the judge of the election and qualifications of its members; regulations as to quorum.—1. Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members, and a Majority of each shall constitute a Quorum to do Business; but a smaller Number may adjourn from day to day, and may be authorized to compel the Attendance of absent Members, in such Manner, and under such Penalties as each House may provide.

Each house to determine its own rules.—2. Each House may determine the Rules of its Proceedings, punish its Members for disorderly Behaviour, and, with the Concurrence of two thirds, expel a Member.

Journals and yeas and nays.—3. Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.

Adjournment.—4. Neither House, during the Session of Congress shall, without the Consent of the other, adjourn for more than three days, nor to any other Place than that in which the two Houses shall be sitting.

Section 6

Compensation and privileges of Members of Congress.—1. The Senators and Representatives shall receive a Compensation for their Services, to be ascertained by Law, and paid out of the Treasury of the United States. They shall in all Cases, except Treason, Felony and Breach of the

* The 1st paragraph of this section and as much of the 2nd paragraph as relates to filling vacancies are amended by the 17th Amendment.

† Amended by the 20th Amendment, Section 2.

Peace, be privileged from Arrest during their Attendance at the Session of their respective Houses, and in going to and returning from the same; and for any Speech or Debate in either House, they shall not be questioned in any other Place.

Incompatible offices; exclusions.—2. No Senator or Representative shall, during the Time for which he was elected, be appointed to any civil Office under the Authority of the United States, which shall have been created, or the Emoluments whereof shall have been increased during such time; and no Person holding any Office under the United States, shall be a Member of either House during his Continuance in Office.

Section 7

Revenue bills to originate in House.—1. All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills.

Manner of passing bills; veto power of President.—2. Every Bill which shall have passed the House of Representatives and the Senate, shall, before it becomes a Law, be presented to the President of the United States; If he approve he shall sign it, but if not he shall return it, with his Objections to that House in which it shall have originated, who shall enter the Objections at large on their Journal, and proceed to reconsider it. If after such Reconsideration two thirds of that House shall agree to pass the Bill, it shall be sent, together with the Objections, to the other House, by which it shall likewise be reconsidered, and if approved by two thirds of that House, it shall become a Law. But in all such Cases the Votes of both Houses shall be determined by Yeas and Nays, and the Names of the Persons voting for and against the Bill shall be entered on the Journal of each House respectively. If any Bill shall not be returned by the President within ten Days (Sundays excepted) after it shall have been presented to him, the Same shall be a Law, in like Manner as if he had signed it, unless the Congress by their Adjournment prevent its Return, in which Case it shall not be a Law.

Concurrent orders or resolutions, to be passed by President.—3. Every Order, Resolution, or Vote to which the Concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the Same shall take Effect, shall be approved by him, or being disapproved by him, shall be repassed by two thirds of the Senate and House of Representatives, according to the Rules and Limitations prescribed in the Case of a Bill.

Section 8

General powers of Congress.*

The Congress shall have Power.—1. To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

Borrowing of money.—2. To borrow Money on the credit of the United States;

Regulation of commerce.—3. To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

Naturalization and bankruptcy.—4. To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

Money, weights and measures.—5. To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

Counterfeiting.—6. To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

Post offices.—7. To establish Post Offices and post Roads;

Patents and copyrights.—8. To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

Inferior courts.—9. To constitute Tribunals inferior to the supreme Court;

Piracies and felonies.—10. To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;

War; marque and reprisal.—11. To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;

Armies.—12. To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

Navy.—13. To provide and maintain a Navy;

Land and naval forces.—14. To make Rules for the Government and Regulation of the land and naval Forces;

Calling out militia.—15. To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;

Organizing, arming and disciplining militia.—16. To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be

* By the 16th Amendment, Congress is given the power to lay and collect taxes on incomes.

employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

Exclusive legislation over District of Columbia.—17. To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards, and other needful Buildings;—And

To enact laws necessary to enforce Constitution.—18. To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

Section 9

Migration or importation of certain persons not to be prohibited before 1808.—1. The Migration or Importation of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a Tax or duty may be imposed on such Importation, not exceeding ten dollars for each Person.

Writ of habeas corpus not to be suspended; exception.—2. The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.

Bills of attainder and ex post facto laws prohibited.—3. No Bill of Attainder or ex post facto Law shall be passed.

Capitation and other direct taxes.—4. No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken.*

Exports not to be taxed.—5. No Tax or Duty shall be laid on Articles exported from any State.

No preference to be given to ports of any State; interstate shipping.—6. No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.

Money, how drawn from treasury; finan-

cial statements to be published.—7. No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

Titles of nobility not to be granted; acceptance by government officers of favors from foreign powers.—8. No Title of Nobility shall be granted by the United States: And no Person holding any Office of Profit or Trust, under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever, from any King, Prince, or foreign State.

Section 10

Limitations of the powers of the several States.—1. No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility.

State imposts and duties.—2. No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing its inspection Laws: and the net Produce of all Duties and Imposts, laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Control of the Congress.

Further restrictions on powers of States.—3. No State shall, without the Consent of Congress, lay any Duty of Tonnage, keep Troops, or Ships of War in time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.

ARTICLE II

Section 1

The President; the executive power.—1. The executive Power shall be vested in a President of the United States of America. He shall hold his Office during the Term of four Years, and, together with the Vice President, chosen for the same Term, be elected, as follows

Appointment and qualifications of presidential electors.—2. Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and

* See the 16th Amendment.

Representatives to which the State may be entitled in the Congress: but no Senator or Representative, or Person holding an Office of Trust or Profit under the United States, shall be appointed an Elector.

Original method of electing the President and Vice-President.*—[The Electors shall meet in their respective States, and vote by Ballot for two Persons, of whom one at least shall not be an Inhabitant of the same State with themselves. And they shall make a List of all the Persons voted for, and of the Number of Votes for each; which List they shall sign and certify, and transmit sealed to the Seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the Presence of the Senate and House of Representatives, open all the Certificates, and the Votes shall then be counted. The Person having the greatest Number of Votes shall be the President, if such Number be a Majority of the whole Number of Electors appointed; and if there be more than one who have such Majority, and have an equal Number of Votes, then the House of Representatives shall immediately chuse by Ballot one of them for President; and if no person have a Majority, then from the five highest on the List the said House shall in like Manner chuse the President. But in chusing the President, the Votes shall be taken by States, the Representation from each State having one Vote; A quorum for this Purpose shall consist of a Member or Members from two thirds of the States, and a Majority of all the States shall be necessary to a Choice. In every Case, after the Choice of the President, the Person having the greatest Number of Votes of the Electors shall be the Vice President. But if there should remain two or more who have equal Votes, the Senate should chuse from them by Ballot the Vice President.]

Congress may determine time of choosing electors and day for casting their votes.—3. The Congress may determine the Time of chusing the Electors, and the Day on which they shall give their Votes; which Day shall be the same throughout the United States.

Qualifications for the office of President.†—4. No Person except a natural born Citizen, or a Citizen of the United States, at the time of the Adoption of this Constitution, shall be eligible to the Office of President; neither shall any Person be eligible to that Office who shall not have attained to the Age of thirty five Years, and been fourteen Years a Resident within the United States.

Filling vacancy in the office of Presi-

dent.‡—5. In Case of the Removal of the President from Office, or of his Death, Resignation, or Inability to discharge the Powers and Duties of the said Office, the same shall devolve on the Vice President, and the Congress may by Law provide for the Case of Removal, Death, Resignation or Inability, both of the President and Vice President, declaring what Officer shall then act as President, and such Officer shall act accordingly, until the Disability be removed, or a President shall be elected.

Compensation of the President.—6. The President shall, at stated Times, receive for his Services, a Compensation, which shall neither be encreased nor diminished during the Period for which he shall have been elected, and he shall not receive within that Period any other Emolument from the United States, or any of them.

Oath to be taken by the President.—7. Before he enter on the Execution of his Office, he shall take the following Oath or Affirmation:—"I do solemnly swear (or affirm) that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States."

Section 2

The President to be commander in chief of army and navy and head of executive departments; may grant reprieves and pardons.—1. The President shall be Commander in Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States; he may require the Opinion, in writing, of the principal Officer in each of the executive Departments, upon any subject relating to the Duties of their respective Offices, and he shall have Power to grant Reprieves and Pardons for Offences against the United States, except in Cases of Impeachment.

President may, with concurrence of Senate, make treaties, appoint ambassadors, etc.; appointment of inferior officers, authority of Congress over.—2. He shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law: but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in

* This clause has been superseded by the 12th Amendment.

† For qualifications of the Vice President, see 12th Amendment.

‡ Amended by the 20th Amendment, Sections 3 and 4.

the Courts of Law, or in the Heads of Departments.

President may fill vacancies in office during recess of Senate.—3. The President shall have Power to fill up all Vacancies that may happen during the Recess of the Senate, by granting Commissions which shall expire at the End of their next Session.

Section 3

President to give advice to Congress; may convene or adjourn it on certain occasions; to receive ambassadors, etc.; have laws executed and commission all officers.—He shall from time to time give to the Congress Information of the State of the Union, and recommend to their Consideration such Measures as he shall judge necessary and expedient; he may, on extraordinary Occasions, convene both Houses, or either of them, and in Case of Disagreement between them, with Respect to the Time of Adjournment, he may adjourn them to such Time as he shall think proper; he shall receive Ambassadors and other public Ministers; he shall take Care that the Laws be faithfully executed, and shall Commission all the Officers of the United States.

Section 4

All civil officers removable by impeachment.—1. The President, Vice President and all civil Officers of the United States, shall be removed from Office on Impeachment for, and Conviction of, Treason, Bribery, or other high Crimes and Misdemeanors.

ARTICLE III

Section 1

Judicial powers; how vested; term of office and compensation of judges.—The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish. The Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behaviour, and shall, at stated Times, receive for their Services, a Compensation, which shall not be diminished during their Continuance in Office.

Section 2

Jurisdiction of Federal courts.*—1. The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of Admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States;—between a State and

Citizens of another State;—between Citizens of different States;—between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

Original and appellate jurisdiction of Supreme Court.—2. In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

Trial of all crimes, except impeachment, to be by jury.—3. The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

Section 3

Treason defined; conviction of.—1. Treason against the United States, shall consist only in levying War against them, or, in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in open Court.

Congress to declare punishment for treason; proviso.—2. The Congress shall have power to declare the Punishment of Treason, but no Attainder of Treason shall work Corruption of Blood, or Forfeiture except during the Life of the Person attainted.

ARTICLE IV

Section 1

Each State to give full faith and credit to the public acts and records of other States.—Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State. And the Congress may by general Laws prescribe the Manner in which such Acts, Records and Proceedings shall be proved, and the Effect thereof.

Section 2

Privileges of citizens.—1. The Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.

Extradition between the several States.—2. A Person charged in any State with Treason, Felony, or other Crime, who shall flee from Justice, and be found in another State, shall on Demand of the executive

* This section is abridged by the 11th Amendment.

Authority of the State from which he fled, be delivered up, to be removed to the State having Jurisdiction of the Crime.

Persons held to labor or service in one State, fleeing to another, to be returned.*
—3. No Person held to Service or Labour in one State, under the Laws thereof, escaping into another, shall, in Consequence of any Law or Regulation therein, be discharged from such Service or Labour, but shall be delivered up on Claim of the Party to whom such Service or Labour may be due.

Section 3

New States.—1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the Jurisdiction of any other State; nor any State be formed by the Junction of two or more States, or Parts of States, without the Consent of the Legislatures of the States concerned as well as of the Congress.

Regulations concerning territory.—2. The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice any Claims of the United States, or of any particular State.

Section 4

Republican form of government and protection guaranteed the several States.—The United States shall guarantee to every State in this Union a Republican Form of Government, and shall protect each of them against Invasion; and on Application of the Legislature, or of the Executive (when the Legislature cannot be convened) against domestic Violence.

ARTICLE V

Ways in which the Constitution can be amended.—The Congress, whenever two thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution, or, on the Application of the Legislatures of two thirds of the several States, shall call a Convention for proposing Amendments, which, in either Case, shall be valid to all Intents and Purposes, as Part of this Constitution, when ratified by the Legislatures of three fourths of the several States, or by Conventions in three fourths thereof, as the one or the other Mode of Ratification may be proposed by the Congress; Provided that no Amendment which may be made prior to the Year One thousand eight hundred and eight shall in any Manner affect the first and fourth Clauses in the Ninth Section of the first Article; and that no State, without its Consent, shall be deprived of its equal Suffrage in the Senate.

ARTICLE VI

Debts contracted under the confederation secured.—1. All Debts contracted and Engagements entered into, before the Adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

Constitution, laws and treaties of the United States to be supreme.—2. This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

Who shall take constitutional oath; no religious test as to official qualification.—3. The Senators and Representatives before mentioned, and the Members of the several State Legislatures, and all executive and judicial Officers, both of the United States and of the several States, shall be bound by Oath or Affirmation, to support this Constitution; but no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States.

ARTICLE VII

Constitution to be considered adopted when ratified by nine States.—The Ratification of the Conventions of nine States shall be sufficient for the Establishment of this Constitution between the States so ratifying the Same.

Done in Convention by the Unanimous Consent of the States present the Seventeenth Day of September in the Year of our Lord one thousand seven hundred and Eighty seven and of the Independence of the United States of America the Twelfth. In witness whereof We have hereunto subscribed our Names.

GO. WASHINGTON

Presdt. and Deputy from Virginia

NEW HAMPSHIRE

John Langdon Nicholas Gilman

MASSACHUSETTS

Nathaniel Gorham Rufus King

CONNECTICUT

Wm Saml Johnson Roger Sherman

NEW YORK

Alexander Hamilton

NEW JERSEY

Wm: Livingston Wm Paterson
David Brearley Jona: Dayton

PENNSYLVANIA

B Franklin Thomas Mifflin
Robt Morris Geo. Clymer
Thos FitzSimons Jared Ingersoll
James Wilson Gouv Morris

DELAWARE

Geo: Read Gunning Bedford Jun
John Dickinson Richard Bassett
Jaco: Broom

MARYLAND

James McHenry Dan of St Thos Jenfer
Dani Carroll

* See the 13th Amendment.

VIRGINIA

John Blair — James Madison Jr.

NORTH CAROLINA

Wm Blount
Hu Williamson Richd Dobbs Spaight

SOUTH CAROLINA

V.J. Rutledge
Charles Pinckney Charles Cotesworth Pinckney,
Pierce Butler

GEORGIA

William Few
Abr Baldwin
Attest: William Jackson, Secretary.

AMENDMENTS TO THE CONSTITUTION OF THE UNITED STATES

(Amendments I to X inclusive, popularly known as the Bill of Rights, were proposed and sent to the states by the first session of the First Congress. They became effective Dec. 15, 1791.)

ARTICLE I

Freedom of religion, speech, of the press, and right of petition.—Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

ARTICLE II

Right of people to bear arms not to be infringed.—A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

ARTICLE III

Quartering of troops.—No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV

Persons and houses to be secure from unreasonable searches and seizures.—The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V

Trials for crimes; just compensation for private property taken for public use.—No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI

Civil rights in trials for crimes enumerated.—In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

ARTICLE VII

Civil rights in civil suits.—In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

ARTICLE VIII

Excessive bail, fines and punishments prohibited.—Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX

Reserved rights of people.—The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

ARTICLE X

Powers not delegated, reserved to states and people respectively.—The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI

(The proposed amendment was sent to the states Mar. 5, 1794, by the Third Congress. It became effective Jan. 8, 1795.)

Judicial power of United States not to extend to suits against a State.—The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.

ARTICLE XII

(The proposed amendment was sent to the states Dec. 12, 1803, by the Eighth Congress. It became effective Sept. 25, 1804.)

Present mode of electing President and Vice-President by electors.*—The Electors shall meet in their respective states, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the President of the Senate;—The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted;—The person having the greatest number of votes for President, shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest numbers not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by states, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President.—The person having the greatest number of votes as Vice-President, shall be the Vice-President, if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list, the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII

(The proposed amendment was sent to the states Feb. 1, 1865, by the Thirty-eighth Congress. It became effective Dec. 18, 1865.)

Section 1

Slavery prohibited.—Neither slavery nor

involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2

Congress given power to enforce this article.—Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XIV

(The proposed amendment was sent to the states June 16, 1866, by the Thirty-ninth Congress. It became effective July 28, 1868.)

Section 1

Citizenship defined; privileges of citizens.—All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2

Apportionment of Representatives.—Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3

Disqualification for office; removal of disability.—No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall

* Amended by the 20th Amendment, Sections 3 and 4.

have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4

Public debt not to be questioned; payment of debts and claims incurred in aid of rebellion forbidden.—The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5

Congress given power to enforce this article.—The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

ARTICLE XV

(The proposed amendment was sent to the states Feb. 27, 1869, by the Fortieth Congress. It became effective Mar. 30, 1870.)

Section 1

Right of certain citizens to vote established.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

Section 2

Congress given power to enforce this article.—The Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XVI

(The proposed amendment was sent to the states July 12, 1909, by the Sixty-first Congress. It became effective Feb. 26, 1913.)

Taxes on income; Congress given power to lay and collect.—The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

ARTICLE XVII

(The proposed amendment was sent to the states May 16, 1912, by the Sixty-second Congress. It became effective May 31, 1913.)

Election of United States Senators; filling of vacancies; qualifications of electors.

1. The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for

six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislatures.

2. When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: *Provided*, That the legislature of any State may empower the executive thereof to make temporary appointment until the people fill the vacancies by election as the legislature may direct.

3. This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

ARTICLE XVIII*

(The proposed amendment was sent to the states Dec. 18, 1917, by the Sixty-fifth Congress. It was approved by three-quarters of the states by Jan. 16, 1919, and became effective Jan. 16, 1920.)

Manufacture, sale or transportation of intoxicating liquors, for beverage purposes, prohibited.—1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

Congress and the several States given concurrent power to pass appropriate legislation to enforce this article.—2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

Provisions of article to become operative, when adopted by three-fourths of the States.—3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by Congress.

ARTICLE XIX

(The proposed amendment was sent to the states June 4, 1919, by the Sixty-sixth Congress. It became effective Aug. 26, 1920.)

The right of citizens to vote shall not be denied because of sex.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any States on account of sex.

Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XX

(The proposed amendment, sometimes called the "Lame Duck Amendment," was sent to the states Mar. 3, 1932, by the Seventy-second Congress. It became effective Feb. 6, 1933; but, in accordance with Section 5, Sections 1 and 2 did not go into effect until Oct. 15, 1933.)

* Repealed by the 21st Amendment.

Section 1

Terms of President, Vice-President, Senators and Representatives.—The terms of the President and Vice-President shall end at noon on the twentieth day of January, and the terms of Senators and Representatives at noon on the third day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

Section 2

Time of assembling Congress.—The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the third day of January, unless they shall by law appoint a different day.

Section 3

Filling vacancy in office of President.—If, at the time fixed for the beginning of the term of the President, the President-elect shall have died, the Vice-President-elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President-elect shall have failed to qualify, then the Vice-President-elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President-elect nor a Vice-President-elect shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice-President shall have qualified.

Section 4

Power of Congress in Presidential succession.—The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice-President whenever the right of choice shall have devolved upon them.

Section 5

Time of taking effect.—Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article.

Section 6

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the

several States within seven years from the date of its submission.

ARTICLE XXI

(The proposed amendment was sent to the states Feb. 20, 1933, by the Seventy-second Congress. It became effective Dec. 5, 1933.)

Section 1

Repeal of Prohibition Amendment.—The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

Section 2

Transportation of intoxicating liquors.—The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

Section 3

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by convention in the several States, as provided in the Constitution, within seven years from the date of the submission thereof to the States by the Congress.

ARTICLE XXII

(The proposed amendment was sent to the states Mar. 21, 1947, by the Eightieth Congress. It became effective Feb. 26, 1951.)

Section 1

Limit to number of terms a President may serve.—No person shall be elected to the office of the President more than twice, and no person who has held the office of President, or acted as President, for more than two years of a term to which some other person was elected President shall be elected to the office of the President more than once. But this Article shall not apply to any person holding the office of President when this Article was proposed by the Congress, and shall not prevent any person who may be holding the office of President, or acting as President, during the term within which this Article becomes operative from holding the office of President or acting as President during the remainder of such term.

Section 2

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission to the States by the Congress.

Lincoln's Gettysburg Address

The Battle of Gettysburg, one of the most noted battles of the Civil War, was fought on July 1, 2, and 3, 1863. On November 19, 1863, the field was dedicated as a national cemetery by President Lincoln in a two-minute speech that was to become immortal. At the time of its de-

livery the speech was relegated to the inside pages of the papers, while a two-hour address by Edward Everett, the leading orator of the time, caught the headlines.

The following is the text of the address revised by President Lincoln from his own notes:

FOURSCORE and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The Monroe Doctrine

The Monroe Doctrine was announced in President James Monroe's message to Congress, during his second term on December 2, 1823 in part as follows:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

Minority Presidents

Thirteen candidates have become President of the U. S. with a popular vote less than 50 per cent of the total vote cast. It should be noted, however, that in elections before 1872, presidential electors were not chosen by popular vote in all states. Adams' election in 1824 was by the House of Representatives, which chose him over Jackson, who had a plurality of both electoral and popular votes, but not a majority in the electoral college.

Besides Jackson in 1824, only two other candidates receiving the largest popular vote have failed to gain a majority in the electoral college—Samuel J. Tilden (D) in 1876 and Grover Cleveland (D) in 1888.

The "minority" Presidents follow:

Year	President	Electoral	Popular vote
		Pct.	Pct.
1824	John Q. Adams.....	31.8	29.8
1844	James K. Polk (D).....	61.8	49.3
1848	Zachary Taylor (W).....	56.2	47.3
1856	James Buchanan (D).....	58.7	45.3
1860	Abraham Lincoln (R).....	59.4	39.9
1876	Rutherford B. Hayes (R).....	50.1	47.9
1880	James A. Garfield (R).....	57.9	48.3
1884	Grover Cleveland (D).....	54.6	48.8
1888	Benjamin Harrison (R).....	58.1	47.8
1892	Grover Cleveland (D).....	62.4	46.0
1912	Woodrow Wilson (D).....	81.9	41.8
1916	Woodrow Wilson (D).....	52.1	49.3
1948	Harry S. Truman (D).....	57.1	49.5

The Mayflower Compact

On September 6, 1620, the *Mayflower*, a sailing vessel of about 180 tons, started her memorable voyage from Plymouth, England with about 100* pilgrims aboard, bound for Virginia to establish a private permanent colony in North America. Arriving at Provincetown, Mass., on November 11 (November 21, new style calendar),

forty-one of the passengers signed the famous "Mayflower Compact" as the boat lay at anchor in that Cape Cod harbor. A small detail of the pilgrims, led by William Bradford, assigned to select a place for permanent settlement landed at what is now Plymouth, Mass., on December 21, n.s.

The text of the compact follows:

IN THE NAME OF GOD, Amen. We, whose names are underwritten, the Loyal Subjects of our dread Sovereign Lord, King *James*, by the Grace of God, of *Great Britain, France and Ireland*, King, *Defender of the Faith*, &

Having undertaken for the Glory of God, and Advancement of the Christian Faith, and the Honour of our King and Country, a voyage to plant the first colony in the northern Parts of Virginia; do by these Presents, solemnly and mutually in the Presence of God and one of another, covenant and combine ourselves together into a civil Body Politick, for our better Ordering and Preservation, and Furtherance of the Ends aforesaid; And by Virtue hereof to enact, constitute, and frame, such just and equal Laws, Ordinances, Acts, Constitutions and Offices, from time to time, as shall be thought most meet and convenient for the General good of the Colony; unto which we promise all due Submission and Obedience.

In WITNESS whereof we have hereunto subscribed our names at *Cape Cod* the eleventh of *November*, in the Reign of our Sovereign Lord, King *James of England, France and Ireland*, the eighteenth, and of *Scotland* the fifty-fourth. *Anno Domini*, 1620

John Carver
Digery Priest
William Brewster
Edmund Margesson
John Alden
George Soule
James Chilton
Francis Cooke
Josias Fletcher
John Ridgate
Christopher Martin

William Mullins
Thomas English
John Howland
Stephen Hopkins
Edward Winslow
Gilbert Winslow
Miles Standish
Richard Bitteridge
Francis Eaton
John Tilly
John Billington

Thomas Tinker
Samuel Fuller
Richard Clark
John Allerton
Richard Warren
Edward Lilester
William Bradford
Thomas Williams
Isaac Allerton
Peter Brown
John Turner

Edward Tilly
John Craxton
Thomas Rogers
John Goodman
Edward Fuller
Richard Gardiner
William White
Edward Doten

* Historians differ as to whether 100, 101, or 102 passengers were aboard.

The Early Congresses

At the urging of Massachusetts and Virginia, the First Continental Congress met in Philadelphia on September 5, 1774, and was attended by representatives of all the colonies except Georgia. Patrick Henry of Virginia declared: "The distinctions between Pennsylvanians, New Yorkers and New Englanders are no more. I am not a Virginian but an American." This Congress, which adjourned October 26, 1774, passed intercolonial resolutions calling for extensive boycott by the colonies against British trade.

The following year, most of the delegates from the colonies were chosen by popular election to attend the Second Continental Congress, which assembled in Philadelphia on May 10. As war had already begun between the colonies and England, the chief problems before the Congress were the procuring of military supplies, the establishment of an army and proper defenses, the issuing of continental bills of credit, etc. On June 15, 1775, George Washington

was elected to command the Continental army. Congress adjourned Dec. 12, 1776.

Other Continental Congresses were held in Baltimore (1776-77), Philadelphia (1777), Lancaster, Pa. (1777), York, Pa. (1777-78), and Philadelphia (1778-81).

In 1781, the Articles of Confederation, although establishing a league of the thirteen states rather than a strong central government, provided for the continuance of Congress. Known thereafter as the Congress of the Confederation, it held sessions in Philadelphia (1781-83), Princeton, N. J. (1783), Annapolis, Md. (1783-84), and Trenton, N. J. (1784). Five sessions were held in New York City between the years 1785 and 1789.

The Congress of the United States, established by the ratification of the Constitution, held its first meeting on Mar. 4, 1789, in New York City. Several sessions of Congress were held in Philadelphia, and the first meeting in Washington, D. C., was on Nov. 17, 1800.

Presidents of the Continental Congresses

Name	Elected	Born	Died
Peyton Randolph, Va.	Sept. 5, 1774	c.1721	1775
Henry Middleton, S. C.	Oct. 22, 1774	1717	1784
Peyton Randolph, Va.	May 10, 1775	c.1721	1775
John Hancock, Mass.	May 24, 1775	1737	1793
Henry Laurens, S. C.	Nov. 1, 1777	1724	1792
John Jay, N. Y.	Dec. 10, 1778	1745	1829
Samuel Huntington, Conn.	Sept. 28, 1779	1731	1796
Thomas McKean, Del.	July 10, 1781	1734	1811
John Hanson, Md.	Nov. 5, 1781	1715	1781
Elias Boudinot, N. J.	Nov. 4, 1782	1740	1821
Thomas Mifflin, Pa.	Nov. 3, 1783	1744	1800
Richard Henry Lee, Va.	Nov. 30, 1784	1732	1794
John Hancock, Mass.*	Nov. 23, 1785	1737	1793
Nathaniel Gorham, Mass.	June 6, 1786	1738	1796
Arthur St. Clair, Pa.	Feb. 2, 1787	1734	1818
Cyrus Griffin, Va.	Jan. 22, 1788	1748	1810

* Resigned May 29, 1786, never having served, because of continued illness.

The Star-Spangled Banner

Francis Scott Key, 1814

O say, can you see, by the dawn's early light,
 What so proudly we hail'd at the twilight's last gleaming?
 Whose broad stripes and bright stars, thro' the perilous fight,
 O'er the ramparts we watch'd, were so gallantly streaming?
 And the rockets' red glare, the bombs bursting in air,
 Gave proof thro' the night that our flag was still there.
 O say, does that star-spangled banner yet wave
 O'er the land of the free and the home of the brave?

On the shore dimly seen thro' the mists of the deep,
 Where the foe's haughty host in dread silence reposes;
 What is that which the breeze, o'er the towering steep,
 As it fitfully blows, half conceals, half discloses?
 Now it catches the gleam of the morning's first beam,
 In full glory reflected, now shines on the stream:
 'T is the star-spangled banner: O, long may it wave
 O'er the land of the free and the home of the brave!

And where is that band who so vauntingly swore
 That the havoc of war and the battle's confusion,
 A home and a country should leave us no more?
 Their blood has wash'd out their foul footsteps' pollution.
 No refuge could save the hireling and slave
 From the terror of flight or the gloom of the grave:
 And the star-spangled banner in triumph doth wave
 O'er the land of the free and the home of the brave.

O thus be it ever when free-men shall stand
 Between their lov'd home and the war's desolation;
 Blest with vict'ry and peace, may the heav'n-rescued land
 Praise the Pow'r that hath made and preserv'd us a nation!
 Then conquer we must, when our cause it is just,
 And this be our motto: "In God is our trust!"
 And the star-spangled banner in triumph shall wave
 O'er the land of the free and the home of the brave!

ON SEPTEMBER 13, 1814, Francis Scott Key visited the British fleet in Chesapeake Bay to secure the release of Dr. William Beanes, who had been captured after the burning of Washington, D. C. The release was secured, but Key was detained on ship overnight during the shelling of Fort McHenry, one of the forts defending Baltimore. In the morning, he was so delighted to see the American flag still flying over the fort that he began a poem to commemorate the occasion. Entitled "The Star-Spangled Banner," the poem soon attained wide popularity as sung to the tune "Anacreon in Heaven." The origin of this tune is obscure, but it may have been written by John Stafford Smith, a British composer born in 1750. "The Star-Spangled Banner" was officially made the National Anthem by Congress in 1931, although already adopted as such by the Army and Navy.

History of the Flag

Source: *Encyclopaedia Britannica.*

THE FIRST OFFICIAL AMERICAN flag, the Continental or Grand Union flag, was displayed on Prospect Hill, Jan. 1, 1776, in the American lines besieging Boston. It had thirteen alternate red and white stripes, with the British Union Jack in the upper left corner.

On June 14, 1777, the Continental Congress adopted the design for a new flag, which actually was the Continental flag with the red cross of St. George and the white cross of St. Andrew replaced on the blue field by thirteen stars, one for each state. No rule was made as to the arrangement of the stars, and while they were usually shown in a circle, there were various other designs. It is uncertain when the new flag was first flown, but its first official announcement is believed to have been on Sept. 3, 1777.

The first public assertion that Betsy Ross made the first Stars and Stripes appeared in a paper read before the Historical Society of Pennsylvania on March 14, 1870, by William J. Canby, a grandson. However, Mr. Canby on later investigation found no official documents of any action by Congress on the flag before June 14, 1777. Betsy Ross's own story, according to her daughter, was that Washington, Robert Morris, and George Ross, as representatives of Congress, visited her, in Philadelphia in June 1776, showing her a rough draft of the flag and asking her if she could make one. However, the only actual record of the manufacture of flags by Betsy Ross is a voucher in Harrisburg, Pa., for 14 pounds

* 11 states formally seceded, and unofficial groups in Kentucky and Missouri adopted ordinances of secession. On this basis, these two states were admitted to the Confederacy, although the official state governments remained in the Union.

and some shillings for flags for the Pennsylvania navy.

On Jan. 13, 1794, Congress voted to add two stars and two stripes to the flag in recognition of the admission of Vermont and Kentucky to the Union. By 1818, there were twenty states in the Union, and as it was obvious that the flag would soon become unwieldy, Congress voted April 18 to return to the original thirteen stripes and to indicate the admission of a new state simply by the addition of a star the following July 4. The most recent star, the forty-ninth, was added July 4, 1959, for Alaska. One for Hawaii will be added July 4, 1960.

The first Confederate flag, adopted in 1861 by the Confederate convention in Montgomery, Ala., was called the Stars and Bars; but because of its similarity in colors to the American flag, there was much confusion in the Battle of Bull Run. To remedy this situation, Gen. G. T. Beauregard suggested a battle flag, which was used by the Southern armies throughout the war. The flag consisted of a red field on which was placed a blue cross of St. Andrew separated from the field by a white fillet and adorned with thirteen* white stars for the Confederate states. In May 1863, at Richmond, an official flag was adopted by the Confederate Congress. This flag was white and twice as long as wide; the union, two-thirds the width of the flag, contained the battle flag designed for Gen. Beauregard. A broad transverse stripe of red was added Feb. 4, 1865, so that the flag might not be mistaken for a signal of truce.

Flag Etiquette

(Public Law 829—77th Congress)

JOINT RESOLUTION

To amend Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America."

Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America," be, and the same is hereby amended to read as follows:

That the following codification of existing rules and customs pertaining to the display and use of the flag of the United States of America be, and it is hereby established for the use of such civilians or civilian groups or organizations as may

not be required to conform with regulations promulgated by one or more executive departments of the Government of the United States.

Sec. 2. (a) It is the universal custom to display the flag only from sunrise to sunset on buildings and on stationary flag-staffs in the open. However, the flag may be displayed at night upon special occasions when it is desired to produce a patriotic effect.

(b) The flag should be hoisted briskly and lowered ceremoniously.

(c) The flag should not be displayed on days when the weather is inclement.

(d) The flag should be displayed on all days when the weather permits, especially on New Year's Day, January 1; Inauguration Day, January 20; Lincoln's Birthday, February 12; Washington's Birthday, Feb-

ruary 22; Army Day*, April 6; Easter Sunday (variable); Mother's Day, second Sunday in May; Memorial Day (half-staff until noon), May 30; Flag Day, June 14; Independence Day, July 4; Labor Day, first Monday in September; Constitution Day, September 17; Columbus Day, October 12; Navy Day*, October 27; Armistice Day, November 11†; Thanksgiving Day, fourth Thursday in November; Christmas Day, December 25; such other days as may be proclaimed by the President of the United States; the birthdays of States (dates of admission); and on State holidays.

(e) The flag should be displayed daily, weather permitting, on or near the main administration building of every public institution.

(f) The flag should be displayed in or near every polling place on election days.

(g) The flag should be displayed during school days in or near every schoolhouse.

Sec. 3. That the flag, when carried in a procession with another flag or flags, should be either on the marching right; that is, the flag's own right, or, if there is a line of other flags, in front of the center of that line.

(a) The flag should not be displayed on a float in a parade except from a staff, or as provided in subsection (i).

(b) The flag should not be draped over the hood, top, sides, or back of a vehicle or of a railroad train or a boat. When the flag is displayed on a motorcar, the staff shall be fixed firmly to the chassis or clamped to the radiator cap.

(c) No other flag or pennant should be placed above or, if on the same level, to the right of the flag of the United States of America, except during church services conducted by naval chaplains at sea, when the church pennant may be flown above the flag during church services for the personnel of the Navy. No person shall display the flag of the United Nations or any other national or international flag equal, above, or in a position of superior prominence or honor to, or in place of, the flag of the United States at any place within the United States or any Territory or possession thereof: *Provided*, That nothing in this section shall make unlawful the continuance of the practice heretofore followed of displaying the flag of the United Nations in a position of superior prominence or honor, and other national flags in positions of equal prominence or honor, with that of the flag of the United States at the headquarters of the United Nations.††

(d) The flag of the United States of America, when it is displayed with another

flag against a wall from crossed staffs, should be on the right, the flag's own right, and its staff should be in front of the staff of the other flag.

(e) The flag of the United States of America should be at the center and at the highest point of the group when a number of flags of States or localities or pennants of societies are grouped and displayed from staffs.

(f) When flags of States, cities, or localities, or pennants of societies are flown on the same halyard with the flag of the United States, the latter should always be at the peak. When the flags are flown from adjacent staffs, the flag of the United States should be hoisted first and lowered last. No such flag or pennant may be placed above the flag of the United States or to the right of the flag of the United States.

(g) When flags of two or more nations are displayed, they are to be flown from separate staffs of the same height. The flags should be of approximately equal size. International usage forbids the display of the flag of one nation above that of another nation in time of peace.

(h) When the flag of the United States is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of a building, the union of the flag should be placed at the peak of the staff unless the flag is at half-staff. When the flag is suspended over a sidewalk from a rope extending from a house to a pole at the edge of the sidewalk, the flag should be hoisted out, union first, from the building.

(i) When the flag is displayed otherwise than by being flown from a staff, it should be displayed flat, whether indoors or out, or so suspended that its folds fall as free as though the flag were staffed.

(j) When the flag is displayed over the middle of the street, it should be suspended vertically with the union to the north in an east and west street or to the east in a north and south street.

(k) When used on a speaker's platform, the flag, if displayed flat, should be displayed above and behind the speaker. When displayed from a staff in a church or public auditorium, if it is displayed in the chancel of a church, or on the speaker's platform in a public auditorium, the flag should occupy the position of honor and be placed at the clergyman's or speaker's right as he faces the congregation or audience. Any other flag so displayed in the chancel or on the platform should be placed at the clergyman's or speaker's left as he faces the congregation or audience. But when the flag is displayed from a staff in a church or public auditorium elsewhere than in the chancel or on the platform it shall be placed in the position of honor at the right of the congregation or audience as they face the chancel or platform. Any other flag so displayed should be placed on

* In 1949, Army Day and Navy Day were abandoned; Armed Forces Day is celebrated the 3rd Saturday of May. † In 1954, changed to Veterans Day. †† Section 3 (c) was amended by Public Law 107, approved July 9, 1953, to designate the position of the United Nations flag.

the left of the congregation or audience as they face the chancel or platform.

(l) The flag should form a distinctive feature of the ceremony of unveiling a statue or monument, but it should never be used as the covering for the statue or monument.

(m) The flag, when flown at half-staff, should be first hoisted to the peak for an instant and then lowered to the half-staff position. The flag should be again raised to the peak before it is lowered for the day. By "half-staff" is meant lowering the flag to one-half the distance between the top and bottom of the staff. Crepe streamers may be affixed to spearheads or flag-staffs in a parade only by order of the President of the United States.

(n) When the flag is used to cover a casket, it should be so placed that the union is at the head and over the left shoulder. The flag should not be lowered into the grave or allowed to touch the ground.

SEC. 4. That no disrespect should be shown to the flag of the United States of America, the flag should not be dipped to any person or thing. Regimental colors, State flags, and organization or institutional flags are to be dipped as a mark of honor.

(a) The flag should never be displayed with the union down save as a signal of dire distress.

(b) The flag should never touch anything beneath it, such as the ground, the floor, water, or merchandise.

(c) The flag should never be carried flat or horizontally, but always aloft and free.

(d) The flag should never be used as drapery of any sort whatsoever, never festooned, drawn back, nor up, in folds, but always allowed to fall free. Bunting of blue, white, and red, always arranged with the blue above, the white in the middle, and the red below, should be used for covering a speaker's desk, draping the front of a platform, and for decoration in general.

(e) The flag should never be fastened, displayed, used, or stored in such a manner as will permit it to be easily torn, soiled, or damaged in any way.

(f) The flag should never be used as a covering for a ceiling.

(g) The flag should never have placed upon it, nor on any part of it, nor attached to it any mark, insignia, letter, word, figure design, picture, or drawing of any nature.

(h) The flag should never be used as a receptacle for receiving, holding, carrying, or delivering anything.

(i) The flag should never be used for

advertising purposes in any manner whatsoever. It should not be embroidered on such articles as cushions or handkerchiefs and the like, printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discard; or used as any portion of a costume or athletic uniform. Advertising signs should not be fastened to a staff or halyard from which the flag is flown.

(j) The flag, when it is in such condition that it is no longer a fitting emblem for display, should be destroyed in a dignified way, preferably by burning.

SEC. 5. That during the ceremony of hoisting or lowering the flag or when the flag is passing in a parade or in a review, all persons present should face the flag, stand at attention, and salute. Those present in uniform should render the military salute. When not in uniform, men should remove the headdress with the right hand holding it at the left shoulder, the hand being over the heart. Men without hats should salute in the same manner. Aliens should stand at attention. Women should salute by placing the right hand over the heart. The salute to the flag in the moving column should be rendered at the moment the flag passes.

SEC. 6. That when the national anthem is played and the flag is not displayed, all present should stand and face toward the music. Those in uniform should salute at the first note of the anthem, retaining this position until the last note. All others should stand at attention, men removing the headdress. When the flag is displayed, all present should face the flag and salute.

SEC. 7. That the pledge of allegiance* to the flag, "I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation under God,† indivisible, with liberty and justice for all," be rendered by standing with the right hand over the heart. However, civilians will always show full respect to the flag when the pledge is given by merely standing at attention, men removing the headdress. Persons in uniform shall render the military salute.

SEC. 8. Any rule or custom pertaining to the display of the flag of the United States of America, set forth herein, may be altered, modified, or repealed, or additional rules with respect thereto may be prescribed, by the Commander-in-Chief of the Army and Navy of the United States, whenever he deems it to be appropriate or desirable; and any such alteration or additional rule shall be set forth in a proclamation.

Approved, December 22, 1942.

* The idea originated in 1892 with James B. Upham, an editor of *Youth's Companion*. The claim that Upham was also the author is disputed by some who credit Francis Bellamy. † The phrase "under God" was added to the pledge on June 14, 1954.

RELIGION



Principal Religions of the World

Sources: *Encyclopaedia Britannica*, and various religious organizations.

Statistics of the world's religions are only very rough approximations. Aside from Christianity, few religions, if any, attempt to keep statistical records; and even Protestants and Catholics employ different methods of counting members. All persons of whatever age who have received baptism in the Catholic Church are counted as members, while in most Protestant Churches only those who "join" the church are numbered. The compiling of statistics is further complicated by the fact that in China one may be at the same time a Confucian, a Taoist and a Buddhist. In Japan, one may be both a Buddhist and a Shintoist.

Religion	North America	South America	Europe	Asia	Africa	Australasia ¹	Total
Total Christian.....	168,527,814	122,043,716	463,768,814	50,028,658	32,974,111	11,316,225	848,659,038
Roman Catholic.....	96,198,000 ²	119,493,000	237,749,000 ³	32,818,000	20,444,000	2,803,000	509,505,000
Eastern Orthodox.....	2,770,926		112,447,669	8,106,071	5,868,089		129,192,755
Protestant.....	69,558,588	2,550,716	113,572,145	9,104,587	6,662,022	8,513,225	209,961,283
Jewish ⁴	5,433,000	633,730	3,466,350	1,855,244	585,750	61,500	12,035,574
Moslem.....	33,000	346,000	12,550,000	324,740,000	87,041,000	103,000	424,813,000
Zoroastrian.....				140,000			140,000
Shinto.....				30,000,000			30,000,000
Taoist.....	15,000	17,000	12,000	50,000,000	1,200	8,000	50,053,000
Confucian.....	86,000	95,000	50,000	300,000,000	7,500	52,000	300,290,500
Buddhist.....	165,000	135,000	10,000	150,000,000			150,310,000
Hindu.....	27,000	300,000		324,868,809	624,000	110,000	325,929,809
Primitive.....	50,000	1,000,000		45,000,000	75,000,000	100,000	121,150,000
Others or none.....	66,489,486	1,786,554	79,587,836	248,055,289	21,675,439	3,684,275	421,278,879
Grand total.....	240,826,000	126,357,000	559,445,000	1,524,688,000	217,909,000	15,435,000	2,684,660,000

¹ Includes Australia, New Zealand and Oceania. ² Includes Catholics in Central America and the West Indies

³ Includes Communist-controlled Eurasia. ⁴ Includes total Jewish population whether or not related to the synagogue

History of Leading Religious Groups in the United States

(50,000 members or over; figures are for continental U. S.)

Source: *Yearbook of American Churches*.

Baptist

American Baptist Association.—A group of Independent Missionary Baptist Churches organized into an association in 1905. Members (1958): 630,000.

American Baptist Convention.—The early historical local independency of Baptist churches in America tended to impede the formation of any general organization until in 1814 a General Missionary Convention was formed to permit Baptists to express themselves in terms of missionary activities. In 1845, the state conventions in the South withdrew to organize the Southern Baptist Convention. In 1907, the Northern Baptist Convention was organized, a delegated body under whose direction the many agencies of the Baptists in the North and West now operate. In May, 1950, the name was changed to the American Baptist Convention. Members (1957): 1,555,360.

Baptist General Conference of America.—Formerly known as the Swedish Baptist General Conference of America. It has operated as a general conference since 1879. Members (1958): 65,507.

Conservative Baptist Association of America.—Organized in 1947, it is a body

with no authority over the local churches. Adherents consider the Bible infallible. Members (1958): 275,000.

Free Will Baptists.—A body of Arminian Baptists, organized in 1787 by Benjamin Randall in New Hampshire. Members (1958): 184,287.

The General Association of Regular Baptist Churches.—Founded in 1932 in Chicago by a group of churches which had withdrawn from the Northern Baptist Convention. Members (1958): 126,268.

General Baptists.—An Arminian group of Baptists, organized in 1607 and transplanted to the Colonies in 1714. It died down in the East but was revived in the Midwest in 1823 under Rev. Benoni Stinson. Members (1958): 56,773.

National Baptist Convention, U. S. A., Inc.—The older and parent convention of Negro Baptists. This body is to be distinguished from the National Baptist Convention of America, usually referred to as the "unincorporated" body. Members (1958): 5,000,000.

National Baptist Convention of America.—This is a body usually referred to as the "unincorporated" convention, not to be confused with the "incorporated" National

Baptist Convention, U. S. A., Inc., from which this body withdrew. Organized in 1895. Members (1956) : 2,668,799.

National Baptist Evangelical Life and Soul Saving Assembly of U. S. A.—Organized in 1921 by A. A. Banks, Sr., as a charitable, educational, and evangelical organization. Members (1951) : 57,674.

National Primitive Baptist Convention of the U. S. A.—A group of Negro Baptists opposed to all forms of church organization. Members (1957) : 80,983.

North American Baptist Association.—Organized 1950 in Little Rock, Ark., as the result of a division in the American Baptist Association. In theology these churches are militantly fundamentalist. Members (1956) : 261,202.

Primitive Baptists.—A large group of Baptists, largely through the South, who are opposed to all centralization, to modern missionary societies, and to Sunday schools. They are sometimes called "anti-missionary" Baptists. Members (1950) : 72,000.

Southern Baptist Convention.—In 1845, Southern Baptists withdrew from the General Missionary Convention over the question of slavery and other matters and formed the Southern Baptist Convention. Members (1958) : 9,202,205.

United Baptists.—This group dates from meetings of Regular Baptists and Separate Baptists held in Richmond, Va., in 1787, and a meeting under the name United Baptists in Clark County, Ky., in 1801. Members (1955) : 63,641.

The United Free Will Baptist Church.—A body which set up its organization in 1901. Though ecclesiastically distinct, they are in close relations with the Free Will Baptists. Members (1958) : 100,000.

Catholic and Orthodox

Armenian Church of North America.—The American branch of the Ancient Church of Armenia. Established in the U. S. in 1889. Diocesan organization under the jurisdiction of the Holy See of Etchmiadzin, Armenia, U.S.S.R. Members (1958) : 122,000.

The American Carpatho-Russian Orthodox Greek Catholic Church.—This church is a self-governing diocese in communion with the Ecumenical Patriarchate of Constantinople. On Sept. 19, 1938, the late Patriarch Benjamin I canonized the diocese in the name of the Orthodox Church of Christ. Members (1958) : 100,000.

Greek Archdiocese of North and South America.—Greek-speaking Orthodox Christians have had parishes in the U. S. for the last seventy years. These were first under the jurisdiction of the Metropolitan of Athens and later under the Patriarchate of Constantinople. Political changes in Europe have been reflected in this country

and have brought difficulties in all branches of the Orthodox Church. In 1931, a general convention held in New York City under the presidency of Archbishop Athenagoras brought a large measure of unity and order. Members (1958) : 1,150,000.

North American Catholic Church.—This body is identical with the Roman Catholic Church in worship, faith, etc., but differs in discipline. It was received into union with the Eastern Orthodox Church by the Archbishop of Beirut in 1911 and by the Orthodox Patriarch of Alexandria in 1912. Members (1958) : 78,278.

Polish National Catholic Church of America.—After long dissatisfaction with Roman Catholic Administration in many Polish parishes, this group was organized in 1904. Members (1958) : 271,316.

The Roman Catholic Church.—The largest single group of Christians in the U. S., the Roman Catholic Church is under the spiritual leadership of Pope John XXIII. This group dates back to the priests who accompanied Columbus on his second voyage to the New World. A settlement, later discontinued, was made at St. Augustine, Fla. The continuous history of this Church in the colonies began at St. Mary's in 1634, in Maryland. Members (1958) : 39,509,508.

Romanian Orthodox Episcopate of America.—This body of Eastern Orthodox Christians of Rumanian descent is under the spiritual supervision and canonical jurisdiction of the Bishop of the Romanian Orthodox Church of North and South America. Members (1958) : 50,000.

The Russian Orthodox Church Outside Russia.—Organized in 1920 to unite the missions and parishes of the Russian Orthodox Church outside of Russia. Members (1951) : 55,000.

The Russian Orthodox Greek Catholic Church of America.—The Russian Orthodox Catholic Church entered Alaska in 1792. In 1872, its headquarters were moved from Sitka to San Francisco and, in 1905, to New York. It administers churches in the U. S. (including Alaska and the Aleutians), Canada, South America, and Japan. Members (1958) : 755,000.

U. S. Church Membership, 1958

Source: Yearbook of American Churches.

Religious group	Members
Buddhist.....	10,000
Old Catholic and Polish National Catholic.....	488,246
Eastern Orthodox.....	2,545,318
Jewish.....	5,200,000
Roman Catholic.....	39,509,508
Protestant.....	61,504,669
Total.....	109,257,741

NOTE: Compiled from figures furnished by 255 of the 267 religious bodies in the U. S.

Serbian Eastern Orthodox Church.—This body of the Eastern Orthodox Church has its own diocese and is under jurisdiction of the Serbian Patriarchate (Yugoslavia). Members (1957): 150,000.

Syrian Antiochian Orthodox Church.—This body is a division of the Orthodox Church which is under the jurisdiction of the Patriarch of Antioch. It is a member of the Federation of Orthodox Greek Catholic Churches in America. Members (1958): 110,000.

Ukrainian Orthodox Church of U.S.A.—This church was organized in the U. S. in 1919. Members (1958): 84,000.

Lutheran

American Lutheran Church.—This Church is a constituent body of the American Lutheran Conference. It is itself the result of the merger in 1930 of the Evangelical Lutheran Joint Synod of Ohio and Other States (org. 1918), the Evangelical Lutheran Synod of Iowa and Other States (org. 1854), and the Lutheran Synod of Buffalo (org. 1845). Members (1958): 973,951.

Augustana Evangelical Lutheran Church.—This group, whose constituency originally was of Swedish extraction, is a member of the American Lutheran Conference and is also a participating body in the National Lutheran Council. Organized in 1860. Members (1958): 582,560.

Evangelical Lutheran Church.—In 1917 the United Norwegian Church, the Norwegian Synod, and the Hauge Synod united under the name of Norwegian Lutheran Church of America. In 1930 this group became a constituent part of the American Lutheran Conference. The new name, The Evangelical Lutheran Church, was adopted at its General Convention in 1946. Members (1958): 1,092,866.

The Evangelical Lutheran Joint Synod of Wisconsin and Other States.—This group, a constituent part of the Synodical Conference, was organized in Wisconsin in 1850. Members (1957): 342,993.

Lutheran Church-Missouri Synod.—This group, the largest constituent part of the Synodical Conference, was organized in 1847, holds to an unwavering confessionalism and is the leader in the conservative group among the Lutherans. Members (1958): 2,234,844.

Lutheran Free Church.—This body was organized in 1897 as the result of differences of opinion in the United Norwegian Church over control of the Augsburg Seminary. It became a constituent part of the American Lutheran Conference in 1930. Members (1958): 80,248.

United Evangelical Lutheran Church.—This synod was organized in 1896 in Minneapolis by a merger of the two former

Danish Lutheran Synods in America—the Danish Ev. Luth. Church Conference (1884) and the Danish Ev. Luth. Church in North America (1893). Members (1958): 63,718.

United Lutheran Church in America.—This group dates back to the Ministerium of Pennsylvania, organized in 1748, and beyond that to early colonial days. It represents the union of the General Synod, General Council, and United Synod of the South in 1918. Members (1957): 2,293,902.

Methodist

African Methodist Episcopal Church.—This group was formed in Philadelphia in 1816 and extended throughout the South after the Civil War. Members (1951): 1,166,301.

African Methodist Episcopal Zion Church.—This group was organized in 1796, coming out of the John Street Methodist Church, New York. Members (1959): 780,000.

Christian Methodist Episcopal Church.—In 1870, the General Conference of the M.E. Church, South, approved the request of its colored membership for the formation of their conferences into a separate body. Members (1951): 392,167.

Free Methodist Church of North America.—This body, organized in 1860, grew out of a movement in the Genesee Conference of the Methodist Episcopal Church towards a more original Methodism. Members (1958): 54,942.

The Methodist Church.—In April, 1939, the Uniting Conference forming The Methodist Church was held by representatives of the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Protestant Church. The Methodist Church in the United States originated with the efforts of John and Charles Wesley, leaders of the revival movement in England in the eighteenth century. Methodist emigrants from Ireland planted Methodism in America about 1760. In 1771 Francis Asbury, one of Wesley's preachers, later a Bishop, landed in Philadelphia. The Methodist Episcopal Church was organized in 1784–85. The Methodist Episcopal Church, South, dated from 1846, the separation from the Methodist Episcopal Church having taken place over the slavery issue. The Methodist Protestant Church dated from 1830, and was organized over the issue of lay representation. Members (1958): 9,670,690.

Presbyterian

Cumberland Presbyterian Church.—In 1806, a presbytery (Cumberland) of the Presbyterian Church was dissolved by the Synod of Kentucky on account of its attitude toward revivalism. Members of the presbytery organized as an independent

body in 1810 and became the Cumberland Presbyterian Church. When this body attempted to reunite with the Presbyterian Church in 1906, a minority preferred to continue as an independent church. Members (1958): 87,531.

Presbyterian Church in the U. S.—This group is the branch of the Presbyterian Church which separated from the main body at the time of the Civil War. It is often called the "Southern" Presbyterian Church. Members (1958): 869,452.

The United Presbyterian Church in the U.S.A.—This group was formed in 1958 by a merger of the Presbyterian Church in the U.S.A. (dating from 1640) and the United Presbyterian Church of North America (established in 1858 by a merger of groups tracing their heritage to covenantant and seceder churches in Scotland). Members (1958): 3,094,633.

Other Religious Bodies

Apostolic Overcoming Holy Church of God.—A Negro body incorporated in Alabama in 1919. Members (1956): 75,000.

Assemblies of God.—Independent, pentecostal, evangelical, missionary churches associated for co-operative effort in district and general councils. Organized in Arkansas in 1914. Members (1958): 505,552.

Buddhist Churches of America.—Organized in 1914 as the Buddhist Mission of North America, this group was incorporated in 1942 under the present name and represents Buddhism in this country, the faith based on "the anatman doctrine, supplemented by the idea of karma, and nirvana, the holy ease or a blissful mental state of absolute freedom from evil." Members (1958): 10,000.

The Christian and Missionary Alliance.—An evangelical, evangelistic, and missionary movement organized in 1887. It stresses "the deeper Christian life and consecration to the Lord's service." Members (1958): 56,523.

Christian Churches (Disciples of Christ).—In the revival period of the early nineteenth century, a movement under Thomas Campbell and his son, Alexander, resulted in the establishment of a fellowship called Christians or Disciples. They believe that sects are unscriptural. Members (1958): 1,943,399.

Christian Reformed Church.—A group of Dutch Calvinists which dissented from the Reformed Church in America in 1857 and which was strengthened by later accessions from the same source and by immigration. Members (1958): 228,905.

Church of Christ, Scientist.—Founded by Mary Baker Eddy in 1879. As defined by Mrs. Eddy, Christian Science is the scientific system of divine healing and the reinstatement of primitive Christianity.*

The Church of God.—Inaugurated by Bishop A. J. Tomlinson, who served as General Overseer 1903-43. Episcopal in administration. Members (1957): 71,777.

Church of God (Anderson, Ind.).—This group is one of the largest of the groups which have taken the name "Church of God." Its headquarters are at Anderson, Ind. It originated about 1880. Members (1958): 133,214.

Church of God (Cleveland, Tenn.).—This body, to be differentiated from the Church of God at Anderson, Ind., is a holiness group and pentecostal. It began in 1886 in Tennessee, under the name of Christian Union, reorganized in 1902 as the Holiness Church. In 1907 it adopted the name above. Members (1958): 155,541.

Church of God in Christ.—Organized in Arkansas in 1895, by C. P. Jones and C. H. Mason, who believed there was no salvation without holiness; incorporated 1897. Members (1958): 380,428.

Church of the Brethren (Conservative Duncers).—German pietists from Krefeld, Germany, under the leadership of Peter Becker, entered the colonies in 1719, and settled at Germantown, Philadelphia, Pa. They were called Duncers (baptizers) and were immersionists. The members are conservative as to attire, oaths or affirmations, resistance to force, temperance, and the like. Members (1958): 200,282.

Church of the Nazarene.—One of the larger holiness bodies, organized in Pilot Point, Tex., Oct. 1908. It is in general accord with the early doctrines of Methodism and emphasizes entire sanctification. Members (1958): 291,036.

Churches of Christ.—This body is made up of a large group of churches, formerly reported with the Disciples of Christ but, since the religious census of 1906, reported separately. They are strictly congregational and have no organization larger than the local congregation. Members (1958): 2,000,000.

Congregational Christian Churches.—Congregational churches date back to the Pilgrim Fathers and the early colonists of New England in 1620. The Christian churches date back to the Wesleyan and revival movements at the end of the eighteenth century. These two groups of churches were merged at Seattle, Wash., in 1931. Members (1958): 1,381,124.

*Membership figure not available. The manual of the church forbids "the numbering of people and the reporting of such statistics for publication."

Evangelical and Reformed Church.—This body was formed on June 26, 1934, at Cleveland, Ohio, by a union of the Evangelical Synod of North America and the Reformed Church in the United States. The union was unique in that it left all details to be adjusted afterwards. The constitution was declared in effect at the General Synod which met at Lancaster, Pa., in June 1940. Members (1958): 806,365.

Evangelical Covenant Church of America. A transplantation to the U. S., in 1885, of a free-church movement in the Swedish state church. Until recently the name has been the Swedish Evangelical Mission Covenant. Members (1958): 57,414.

The Evangelical United Brethren Church.—This group had its origin in Johnstown, Pa., November 16, 1946, in the consummation of organic union between the Evangelical Church and the Church of the United Brethren in Christ. Both these former communions had their beginning in Pennsylvania in the evangelistic movement of the early 19th century. Jacob Albright was the founder of the Evangelical Church, and Dr. Philip William Otterbein was the founder of the United Brethren Church in 1800. Members (1958): 749,188.

Friends, The Five Years Meeting of.—The Five Years Meeting of Friends was formed in 1902 by 13 Yearly Meetings entering into a loose confederation. Since then, two of the original Yearly Meetings have withdrawn (Kansas and Oregon) and three Yearly Meetings outside the U. S. have joined. Members (1958): 68,399.

International Church of the Foursquare Gospel.—An evangelistic missionary body organized by Aimee Semple McPherson in 1927. The parent church is Angelus Temple in Los Angeles. Members (1958): 79,012.

Jehovah's Witnesses.—A group calling themselves primitive Christians. They believe that the Kingdom under Christ will replace all earthly governments. Members (1958): 226,797.

Jewish Congregations.—Jews arrived in the colonies before 1650. The first congregation is recorded in 1656, in New York City, the Shearith Israel (Remnant of Israel). Members (1958): 5,200,000.

Latter-day Saints, Church of Jesus Christ of.—A group in which the Bible, the Book of Mormon, the Doctrine and Covenants, and the Pearl of Great Price are regarded as the word of God. The primitive church organization is sought. Members (1958): 1,394,729.

Latter-day Saints, Reorganized Church of Jesus Christ of.—A division among the Latter-day Saints (Mormons) occurred on the death of Joseph Smith in 1844. His son, Joseph Smith, became presiding officer of this group, which has headquarters at Independence, Mo. Members (1958): 146,336.

Mennonite Church.—The largest group of the Mennonites who began arriving in the U. S. in 1683, settling in Germantown, Pa. They derive their name from Menno Simons, born 1496. Members (1958): 71,365.

Moravian Church (Unitas Fratrum).—In 1735, Moravian missionaries of the pre-Reformation faith of John Huss came to Georgia and, in 1740, to Pennsylvania. They established the Moravian Church. Members (1958): 60,415.

Pentecostal Assemblies of the World, Inc.—A pentecostal holiness group originating in the early part of the century and found largely in the Midwest. Members (1958): 50,000.

Pentecostal Church of God of America, Inc.—Organized in 1919 at Chicago, Ill. Members (1958): 103,500.

The Protestant Episcopal Church.—This group entered the colonies with the earliest settlers as the Church of England. It became autonomous, adopted its present name in 1789. Members (1958): 3,042,286.

Reformed Church in America.—This group was established by the earliest Dutch settlers of New York as the Reformed Protestant Dutch Church in 1628. Members (1958): 216,096.

The Salvation Army.—An evangelistic organization, with a military government, first set up by General William Booth in England and introduced into the U. S. in 1880. Members (1958): 250,583.

Seventh-day Adventists.—This body developed out of the Adventist movement (1833-1844), which emphasized the imminent personal return of Jesus Christ. It emphasized the observance of the seventh-day Sabbath and in 1863 was numerous enough to organize a conference. Members (1958): 301,826.

Spiritualists, International General Assembly of.—Organized in Buffalo, N. Y., in 1936. Members (1956): 164,072.

Unitarian Churches.—The Unitarian movement in Congregationalism, beginning in the eighteenth century, produced the American Unitarian Association in 1825. In 1865 a national conference was organized. Members (1958): 108,396.

United Church of Christ.—A merger in 1957 of the Evangelical and Reformed Church and the Congregational Christian Churches. Pending the adoption of a constitution for the United Church of Christ the present structures and procedures of the two groups will continue in effect.

United Pentecostal Church, Inc.—Pentecostal Church, Inc., and Pentecostal Assemblies of Jesus Christ merged in 1945 at St. Louis. Members (1958): 160,000.

Universalist Church of America.—The philosophy of Universalism originated in the 1st century A.D. and was carried to America in the 18th century. Members (1958): 68,949.

Bishops of the Protestant Episcopal Church

Source: Alexander M. Rodger, Secretary, The House of Bishops, 207 Fairmount Rd., Ridgewood, N. J.

(Note: M—Missionary Bishop; C—Coadjutor; S—Suffragan)

Presiding Bishop: Arthur C. Lichtenberger, New York City. Vice President of National Council: John B. Bentley, 218 Park Ave. South, New York 10, N. Y.

- Alabama: Chas. C. J. Carpenter, George M. Murray (C), Birmingham.
- Alaska: Wm. J. Gordon, Jr. (M), Fairbanks.
- Albany (N. Y.): Frederick L. Barry, Allen W. Brown (S).
- Arizona: Arthur B. Kinsolving II, Phoenix.
- Arkansas: Robert R. Brown, Little Rock.
- Atlanta (Ga.): Randolph R. Claiborne.
- Bethlehem (Pa.): Frederick J. Warnecke.
- California: James A. Pike, San Francisco.
- Central America: David E. Richards (M), San José, Costa Rica.
- Central Brazil: Edmund K. Sherrill (M), Rio de Janeiro.
- Central New York: Malcolm E. Peabody, Walter M. Higley (C), Syracuse.
- Chicago: Gerald F. Burrill, Charles L. Street (S).
- Colorado: Joseph S. Minnis, Daniel Corrigan (S), Denver.
- Connecticut: Walter H. Gray, John H. Esquirol (S), Hartford.
- Cuba: Alexander H. Blankingship (M), Havana.
- Dallas (Tex.): C. Avery Mason, Joseph M. Harte (S).
- Delaware: J. Brooke Mosley, Wilmington.
- East Carolina: Thomas H. Wright, Wilmington, N. C.
- Eastern Oregon: Lane W. Barton (M), Bend.
- Easton (Md.): Allen J. Miller.
- Eau Claire (Wis.): William W. Horstick.
- Erie (Pa.): William Crittenden.
- European Churches: Stephen F. Bayne, Jr., London, Eng.
- Florida: Hamilton West, Jacksonville.
- Fond du Lac (Wis.): William H. Brady.
- Georgia: Albert R. Stuart, Savannah.
- Haiti: C. A. Voegell (M), Port-au-Prince.
- Harrisburg (Pa.): J. Thomas Helstand, Harrisburg; Earl M. Honaman (S), Williamsport.
- Honolulu: Harry S. Kennedy (M).
- Idaho: Norman L. Foote (M), Boise.
- Indianapolis: John P. Craine.
- Iowa: Gordon V. Smith, Des Moines.
- Kansas: Edward C. Turner, Topeka.
- Kentucky: C. Gresham Marmion, Jr., Louisville.
- Lexington (Ky.): William R. Moody.
- Liberia: Bravid W. Harris (M), Monrovia.
- Long Island: James P. DeWolfe, Jonathan G. Sherman (S), Garden City, N. Y.
- Los Angeles: Francis E. I. Bloy, Donald J. Campbell (S).
- Louisiana: Girault M. Jones, New Orleans; Iveson B. Noland (S), Alexandria.
- Maine: Oliver L. Loring, Portland.
- Maryland: Noble C. Powell, Harry L. Doll, (C), Baltimore.
- Massachusetts: Anson Phelps Stokes, Jr., Boston, Frederic C. Lawrence (S).
- Mexico: José G. Saucedo (M), Mexico City.
- Michigan: Richard S. Emrich, Archie H. Crowley (S), Detroit.
- Milwaukee: Donald H. V. Hallock.
- Minnesota: Hamilton H. Kellogg, Philip F. McNairy (S), Minneapolis.
- Mississippi: Duncan M. Gray, Jackson.
- Missouri: George L. Cadigan, St. Louis.
- Montana: Chandler W. Sterling, Helena.
- Nebraska: Howard R. Brinker, Omaha.
- Nevada: (Vacant).
- New Hampshire: Charles F. Hall, Concord.
- New Jersey: Alfred L. Banyard, Trenton.
- New Mexico and Southwest Texas: Charles J. Kinsolving III, Albuquerque, N. Mex.
- New York: Horace W. B. Donegan, Charles F. Boynton (S), New York City.
- Newark (N. J.): Leland Stark, Donald MacAdie (S).
- North Carolina: Richard H. Baker, Raleigh.
- North Dakota: Richard Emery (M), Fargo.
- Northwest Texas: George H. Quarterman, Amarillo.
- Northern Indiana: Reginald Mallett, South Bend.
- Northern Michigan: Herman R. Page, Menominee.
- Ohio: Nelson M. Burroughs, Cleveland.
- Oklahoma: Chilton Powell, Oklahoma City.
- Olympia (Wash.): William F. Lewis, Seattle.
- Oregon: James W. F. Carman, Portland.
- Panama Canal Zone: Reginald H. Gooden (M), Ancon.
- Pennsylvania: Oliver J. Hart, J. Gillespie Armstrong (S), Philadelphia.
- Philippines: Lyman C. Ogilby (M), Benito C. Cabanban (S), Manila.
- Pittsburgh: Austin Pardue, William S. Thomas (S).
- Puerto Rico: Albert E. Swift (M), Santurce.
- Quincy (Ill.): William Lickfield.
- Rhode Island: John S. Higgins, Providence, R. I.
- Rochester (N. Y.): Dudley S. Stark.
- Sacramento (Calif.): Clarence R. Haden, Jr.
- Salina (Kans.): Arnold M. Lewis (M).
- San Joaquin (Calif.): Sumner F. D. Walters (M), Stockton.
- South Carolina: Thomas N. Carruthers, Charleston.
- South Dakota: Conrad H. Gesner (M), Sioux Falls.

South Florida: Henry I. Louttit, William F. Moses (S), Winter Park.

Southern Brazil: Egmont M. Krischke (M), Porto Alegre.

Southern Ohio: Roger W. Blanchard, Cincinnati.

Southern Virginia: George P. Gunn, Norfolk; David S. Rose (S), Petersburg.

Southwestern Brazil: Plinio L. Simões (M), Santa Maria.

Southwestern Virginia: William H. Marmon, Roanoke.

Spokane (Wash.): Russell S. Hubbard (M).

Springfield (Ill.): Charles A. Clough.

Tennessee: Theodore N. Barth, Memphis; John Vander Horst (S), Chattanooga.

Texas: John E. Hines, Houston; James P. Clements (S), Austin; Percy Goddard (S), Tyler.

Upper South Carolina: C. Alfred Cole, Columbia, S. C.

Utah: Richard S. Watson (M), Salt Lake City.

Vermont: Vedder Van Dyck, Burlington.

Virginia: Frederick D. Goodwin, Robert F. Gibson (C), Richmond.

Washington (D. C.): Angus Dun, William F. Creighton (C).

West Missouri: Edward R. Welles, Grandview.

West Texas: Everett H. Jones, R. Earl Dicus (S), San Antonio.

West Virginia: Wilburn C. Campbell, Charleston.

Western Massachusetts: Robert M. Hatch, Springfield.

Western Michigan: Dudley B. McNeil, Grand Rapids.

Western New York: Lauriston L. Scaife, Buffalo.

Western North Carolina: M. George Henry, Asheville, N. C.

Wyoming: James W. Hunter (M), Laramie.

Bishops of The Methodist Church

Source: Methodist Information, New York City.

President: Bishop Marvin A. Franklin, Jackson, Miss. President-designate: Bishop Gerald Kennedy, Los Angeles, Calif. (to take office April 21, 1960). Secretary: Bishop Roy H. Short, 201 Eighth Ave. So., Nashville, Tenn.

Hobart Amstutz; Singapore, Malaya.
Sante Uberto Barbieri; Buenos Aires.
Newell S. Booth; Elisabethville, Bel. Congo.
J. W. E. Bowen; Atlanta, Ga.
Charles W. Brashares; Chicago, Ill.
Matthew W. Clair, Jr.; St. Louis, Mo.
D. Stanley Coors; St. Paul, Minn.
Fred P. Corson; Philadelphia, Pa.
Dana Dawson; Topeka, Kans.
Ralph E. Dodge; Salisbury, Southern Rhodesia.

F. Gerald Ensley; Des Moines, Iowa.
Eugene M. Frank; St. Louis, Mo.
Marvin A. Franklin; Jackson, Miss.
Paul N. Garber; Richmond, Va.
A. Raymond Grant; Portland, Oreg.
Odd Hagen; Stockholm, Sweden.
Nolan B. Harmon; Charlotte, N. C.
Bachman G. Hodge; Birmingham, Ala.
Gerald Kennedy; Los Angeles, Calif.
Willis J. King; New Orleans, La.
W. Earl Ledden; Syracuse, N. Y.
John Wesley Lord; Boston, Mass.
Edgar A. Love; Baltimore, Md.
Paul E. Martin; Little Rock, Ark.

William C. Martin; Dallas, Tex.
Shot K. Mondol; Delhi, India.
Arthur J. Moore; Atlanta, Ga.
Frederick B. Newell; New York, N. Y.
H. Clifford Northcott; Madison, Wis.
G. Bromley Oxnam; Washington, D. C.
Glenn R. Phillips; Denver, Colo.
Richard C. Raines; Indianapolis, Ind.
Marshall R. Reed; Detroit, Mich.
Clement D. Rockey; Lahore, Pakistan.
Julio Manuel Sabanes; Santiago, Chile.
Roy H. Short; Nashville, Tenn.
Ferdinand Sigg, Zürich, Switzerland.
Mangal Singh; Bombay, India.
A. Frank Smith; Houston, Tex.
W. Angle Smith; Oklahoma City, Okla.
John A. Subhan; Hyderabad, India.
Gabriel Sundaram; Lucknow, India.
Prince Albert Taylor; Monrovia, Liberia.
Donald H. Tippet; San Francisco, Calif.
José Valencia; Manila, Philippines.
Edwin E. Voigt; Aberdeen, S. Dak.
H. Bascom Watts; Lincoln, Nebr.
Hazen G. Werner; Columbus, Ohio.
Lloyd C. Wicke; Pittsburgh, Pa.
Friedrich Wunderlich; Frankfurt, Germany.

Roman Catholic Hierarchy of the U. S.

Source: National Catholic Welfare Conference, Washington, D. C.

(Note: A—Auxiliary; C—Coadjutor. Archbishops are shown in boldface type, Bishops in lightface. An Archbishop heading a diocese is called an "Archbishop *ad Personam*," i.e., he bears the personal title of Archbishop. The Apostolic Delegate to the U. S. is Archbishop Egidio Vagnozzi.)

Archdioceses

Baltimore, Md.: Francis P. Keough; Jerome D. Sebastian (A).
 Boston, Mass.: Richard Cardinal Cushing; Eric F. MacKenzie (A); Jeremiah E. Minihan (A).
 Chicago, Ill.: Albert G. Meyer; Bernard J. Sheil (A); Wm. D. O'Brien (A); Raymond P. Hillinger (A).
 Cincinnati, Ohio: Karl J. Alter; Paul F. Leibold (A).
 Denver, Colo.: Urban J. Vehr.
 Detroit, Mich.: John F. Dearden; A. M. Zaleski (A); H. E. Donnelly (A); J. A. Donovan (A).
 Dubuque, Iowa: Leo Binz; George J. Biskup (A).
 Hartford, Conn.: Henry J. O'Brien; John F. Hackett (A).
 Indianapolis Ind.: Paul C. Schulte.
 Kansas City, Kans.: Edward J. Hunkeler.
 Los Angeles, Calif.: James Francis Cardinal McIntyre; Timothy Manning (A); Alden J. Bell (A).
 Louisville, Ky.: John A. Floersch; Charles G. Maloney (A).
 Milwaukee, Wis.: William E. Cousins; Roman R. Atkielski (A).
 Newark, N. J.: Thomas A. Boland; Martin W. Stanton (A); Walter Curtis (A).
 New Orleans, La.: Joseph F. Rummel; L. Abel Caillouet (A).
 New York, N. Y.: Francis Cardinal Spellman; Stephen J. Donahue (A); Joseph F. Flannely (A); Fulton J. Sheen (A); Edward V. Dargin (A); Joseph M. Pernicone (A); Raymond A. Lane; Paul Yu Pin; James H. Griffiths (A); William R. Arnold (A); Philip J. Furlong (A); John M. Fearn (A).
 Omaha, Nebr.: Gerald T. Bergan.
 Philadelphia, Pa.: John Cardinal O'Hara, C.S.C.; Joseph C. McCormick (A); Joseph McShea (A); Joseph Mary Yuen Ching Ping (A).
 Portland, Oreg.: Edward D. Howard.
 St. Louis, Mo.: Joseph E. Ritter; Leo C. Byrne (A); Glennon P. Flavin (A).
 St. Paul, Minn.: William O. Brady; Leonard P. Cowley (A).
 San Antonio, Tex.: Robert E. Lucey; Stephen A. Leven (A).
 San Francisco, Calif.: John J. Mitty; Hugh A. Donohoe (A); Merlin J. Guilfoyle (A).
 Santa Fe, N. Mex.: Edwin V. Byrne.
 Seattle, Wash.: Thomas A. Connolly; Thomas E. Gill (A).
 Washington, D. C.: Patrick A. O'Boyle; John M. McNamara (A); Philip M. Hannan (A).

Dioceses

Alaska (vicariate): Francis D. Gleeson, S.J., Vicar Apostolic.
 Albany, N. Y.: William A. Scully; Edward J. Maginn (A).
 Alexandria, La.: Charles P. Greco.
 Altoona-Johnstown, Pa.: Howard J. Carroll.
 Amarillo, Tex.: John L. Morkovsky.
 Atlanta, Ga.: Francis E. Hyland.
 Austin, Tex.: Louis J. Reicher.
 Bahamas (Vicariate): Paul L. Hagarty, O.S.B., Vicar Apostolic.
 Baker City, Oreg.: Francis P. Leipzig.
 Belleville, Ill.: Albert R. Zuroweste.
 Bismarck, N. Dak.: Hilary B. Hacker.
 Boise, Idaho: James J. Byrne.
 Bridgeport, Conn.: Lawrence J. Shehan.
 Brooklyn, N. Y.: Bryan J. McEntegart; J. J. Bordman (A); Joseph P. Denning (A); Charles R. Mulrooney (A).
 Buffalo, N. Y.: Joseph A. Burke; Leo R. Smith (A).
 Burlington, Vt.: R. F. Joyce.
 Camden, N. J.: Justin McCarthy.
 Caroline-Marshall Islands (vicariate): Vincent I. Kennally.
 Charleston, S. C.: Paul J. Hallinan.
 Cheyenne, Wyo.: Hubert M. Newell.
 Cleveland, Ohio: Edward F. Hoban; Floyd L. Begin (A); John J. Krol (A).
 Columbus, Ohio: Clarence G. Issenmann; Edward G. Hettinger (A).
 Corpus Christi, Tex.: Mariano S. Garriga; Adolph Marx (A).
 Covington, Ky.: (Vacant).
 Crookston, Minn.: Francis J. Schenk.
 Dallas-Ft. Worth, Tex.: Thomas K. Gorman; Augustine Danglmayr (A).
 Davenport, Iowa: Ralph L. Hayes.
 Des Moines, Iowa: Edward C. Daly, O.P.
 Dodge City, Kans.: (Vacant).
 Duluth, Minn.: Thomas A. Welch; Laurence A. Glenn (A).
 El Paso, Tex.: Sidney M. Metzger.
 Erie, Pa.: John M. Gannon; Edward P. McManaman (A).
 Evansville, Ind.: Henry J. Grimmelsman.
 Fall River, Mass.: James L. Connolly; James J. Gerrard (A).
 Fargo, N. Dak.: Aloysius J. Muench; Leo F. Dworschak (A).
 Fort Wayne, Ind.: Leo A. Pursley.
 Gallup, N. Mex.: B. T. Espelaga, O.F.M.
 Galveston, Tex.: Wendolin J. Nold.
 Gary, Ind.: A. G. Grutka.
 Grand Island, Nebr.: John L. Paschang.
 Grand Rapids, Mich.: Allen J. Babcock.
 Great Falls, Mont.: William J. Condon.
 Green Bay, Wis.: Stanislaus V. Bona; John B. Grellinger (A).
 Greensburg, Pa.: Hugh L. Lamb.
 Guam (vicariate): Apollinaris W. Baumgartner, O.F.M. Cap., Vicar Apostolic.

Harrisburg, Pa.: George L. Leech; Lawrence F. Schott (A).
 Helena, Mont.: Joseph M. Gilmore.
 Honolulu: J. J. Sweeney; J. J. Scanlan (A).
 Jamaica (Vicariate): John J. McEleney, S.J., Vicar Apostolic.
 Jefferson City, Mo.: Joseph H. Marling, C.P.P.S.
 Joliet, Ill.: Martin D. McNamara.
 Juneau, Alaska: Dermot O'Flanagan.
 Kansas City-St. Joseph, Missouri: John P. Cody.
 La Crosse, Wis.: John P. Treacy.
 Lafayette, Ind.: John J. Carberry.
 Lafayette, La.: Maurice Schexnayder; Robert E. Tracy (A).
 Lansing, Mich.: Joseph H. Albers.
 Lincoln, Nebr.: Jas. V. Casey.
 Little Rock, Ark.: Albert L. Fletcher.
 Madison, Wis.: William P. O'Connor.
 Manchester, N. H.: Matthew F. Brady.
 Marquette, Mich.: Thomas L. Noa.
 Miami, Fla.: Coleman F. Carroll.
 Mobile-Birmingham, Ala.: T. J. Toolen; Joseph A. Durick (A).
 Monterey-Fresno, Calif.: Aloysius J. Willinger, C.Ss.R.; Harry A. Clinch (A).
 Nashville, Tenn.: William L. Adrian.
 Natchez, Miss.: Richard O. Gerow; Joseph Brunini (A).
 New Ulm, Minn.: Alphonse Schadweiler.
 Norwich, Conn.: (Vacant).
 Ogdensburg, N. Y.: J. J. Navagh.
 Oklahoma, City-Tulsa, Okla.: Victor J. Reed.
 Owensboro, Ky.: Francis R. Cotton.
 Paterson, N. J.: James A. McNulty.
 Peoria, Ill.: John B. Franz.
 Pittsburgh, Pa.: John J. Wright.
 Ponce, P. R.: James E. McManus, C.Ss.R.
 Portland, Maine: Daniel J. Feeney.
 Providence, R. I.: Russell J. McVinney.
 Pueblo, Colo.: Charles A. Buswell.
 Raleigh, N. C.: Vincent S. Waters.
 Rapid City, S. Dak.: William T. McCarty, C.Ss.R.
 Reno, Nev.: Robert J. Dwyer.
 Richmond, Va.: John J. Russell; Joseph H. Hodges (A).
 Rochester, N. Y.: James E. Kearney; Lawrence B. Casey (A).
 Rockford, Ill.: Loras T. Lane.
 Rockville Center, N. Y.: W. P. Kellenberg.
 Sacramento, Calif.: Joseph T. McGucken.
 Saginaw, Mich.: Stephen S. Woznicki.
 St. Augustine, Fla.: Joseph P. Hurley.
 St. Cloud, Minn.: Peter W. Bartholome.
 Salina, Kans.: Frederick W. Freking.
 Salt Lake City, Utah: Duane G. Hunt; J. Lennox Federal (A).
 San Diego, Calif.: Charles F. Buddy; Richard H. Ackerman (A).
 San Juan, P. R.: James P. Davis.
 Savannah, Ga.: Gerald P. O'Hara; Thomas J. McDonough (A).
 Scranton, Pa.: Jerome D. Hannan; Henry T. Klonowski (A).
 Sioux City, Iowa: Joseph M. Mueller.
 Sioux Falls, S. Dak.: Lambert A. Hoch.
 Spokane, Wash.: Bernard Joseph Topel.
 Springfield, Ill.: William A. O'Connor.
 Springfield, Mass.: Christopher J. Weldon.
 Springfield-Cape Girardeau, Mo.: Charles M. Helmsing.
 Steubenville, Ohio: John K. Mussio.
 Superior, Wis.: Joseph J. Annabring.
 Syracuse, N. Y.: Walter A. Foery; David F. Cunningham (A).
 Toledo, Ohio: George J. Rehring.
 Trenton, N. J.: George W. Ahr.
 Tucson, Ariz.: Daniel J. Gercke; Francis J. Green (A).
 Wheeling, W. Va.: John J. Swint; Thomas J. McDonnell (C).
 Wichita, Kans.: Mark K. Carroll.
 Wilmington, Del.: Edmond J. Fitzmaurice; Michael Hyle (C).
 Winona, Minn.: Edward A. Fitzgerald.
 Worcester, Mass.: Bernard J. Flanagan.
 Yakima, Wash.: Joseph P. Dougherty.
 Youngstown, Ohio: Emmet M. Walsh.
 Military Ordinariate: Francis Cardinal Spellman, Military Vicar; William Arnold, Military Delegate; Philip J. Furlong (A).
 Belmont, N. C. (Abbacy Nullius): Vincent G. Taylor, O.S.B. (Abbot).
 Philadelphia, Pa. (Byzantine Rite): Constantine Bohachevsky; Joseph Schmon-diuk (A).
 Pittsburgh, Pa. (Greek Rite): Nicholas T. Elko; Stephen Kocisko (A).
 Stamford, Conn. (Ukrainian Greek Catholic Diocese): Ambrose Senyshyn.

The College of Cardinals

Cardinal Bishops

Year of creation	Name	Office or dignity	Nationality
1936	Eugene Tisserant	Bishop of Ostia, Porto, and Santa Rufina; Dean of the Sacred College of Cardinals; Secretary of the Sacred Congregation for the Oriental Church; Prefect of the Sacred Congregation of Ceremonies; Librarian and Archivist of the Holy Roman Church; Chamberlain of the Sacred College	French

Year of creation	Name	Office or dignity	Nationality
1946	Clemente Micara	Bishop of Velletri; Vicar General of Rome	Italian
1937	Giuseppe Pizzardo	Bishop of Albano; Secretary of the Supreme Sacred Congregation of the Holy Office; Prefect of the Sacred Congregation of Seminaries and Universities	Italian
1946	Benedetto Aloisi Masella	Bishop of Palestrina; Prefect of the Sacred Congregation of the Sacraments; Archpriest of St. John Lateran's Basilica; Prefect of the Sacred Congregation of Sacramental Discipline; Chamberlain of the Holy Roman Church	Italian
1933	Federico Tedeschini	Bishop of Frascati; Archpriest of St. Peter's Basilica; Prefect of the Sacred Congregation of the Basilica of St. Peter; Apostolic Datary	Italian
1953	Marcello Mimmi	Bishop of Sabina; Secretary of the Sacred Consistorial Congregation	Italian

Cardinal Priests

1927	Joseph Ernest Van Roey	Archbishop of Malines	Belgian
1929	Emanuel Gonçalves Cerejeira	Patriarch of Lisbon	Portuguese
1930	Achilles Lienart	Bishop of Lille	French
1933	Pietro Fumasoni-Biondi	Prefect of the Sacred Congregation for the Propagation of the Faith	Italian
1933	Maurilio Fossati	Archbishop of Turin	Italian
1933	Elia dalla Costa	Archbishop of Florence	Italian
1935	Ignazio Tappouni	Syrian Patriarch of Antioch	Iraqian
1935	Santiago Copello	Chancellor of the Holy Roman Church	Argentine
1937	Pierre Marie Gerlier	Archbishop of Lyon	French
1946	Gregory Peter XV Agagianian	Patriarch of Cilicia of the Armenians; Pro-Prefect of the Sacred Congregation for the Propagation of the Faith	Trans-caucasian
1946	James McGuigan	Archbishop of Toronto	Canadian
1946	Emile Roques	Archbishop of Rennes	French
1946	Carlo Carmelo de Vasconcelos Motta	Archbishop of São Paulo	Brazilian
1946	Norman Gilroy	Archbishop of Sydney	Australian
1946	Francis J. Spellman	Archbishop of New York	American
1946	Teodosio Clemente de Gouveia	Archbishop of Lourenço Marques, Mozambique	Portuguese
1946	Jaime de Barros Camara	Archbishop of Rio de Janeiro; Ordinary for Oriental Catholics in Brazil	Brazilian
1946	Enrique Pla y Deniel	Archbishop of Toledo and Primate of Spain	Spanish
1946	Manuel Arteaga y Betancourt	Archbishop of Havana	Cuban
1946	Joseph Frings	Archbishop of Cologne	German
1946	Jozsef Mindszenty	Archbishop of Esztergom and Primate of Hungary	Hungarian
1946	Ernesto Ruffini	Archbishop of Palermo; Apostolic Administrator of the Byzantium Rite Eparchy of Piani Dei Greci	Italian
1946	Antonio Caggiano	Archbishop of Buenos Aires	Argentine
1946	Thomas Tien, S. V. D.	Archbishop of Peiping	Chinese
1953	Augusto Alvaro da Silva	Archbishop of San Salvador in Bahia	Brazilian

Year of creation	Name	Office or dignity	Nationality
1953	Gaetano Cicognani	Prefect of Sacred Congregation of Rites; Pro-Prefect of the Apostolic Signature	Italian
1953	Valerio Valeri	Prefect of Sacred Congregation of Affairs of Religious	Italian
1953	Pietro Ciriaci	Prefect of Sacred Congregation of the Council	Italian
1953	Maurice Feltin	Archbishop of Paris	French
1953	Carlos Maria de la Torre	Archbishop of Quito	Ecuadorian
1953	Aloysius Stepinac	Archbishop of Zagreb	Yugoslavian
1953	Giuseppe Siri	Archbishop of Genoa	Italian
1953	John F. D'Alton	Archbishop of Armagh, Primate of all Ireland	Irish
1953	James Francis McIntyre	Archbishop of Los Angeles	American
1953	Giacomo Lercaro	Archbishop of Bologna	Italian
1953	Stefan Wyszyński	Archbishop of Gniezno and Warsaw	Polish
1953	Benjamin de Arriba y Castro	Archbishop of Tarragona	Spanish
1953	Fernando Quiroga y Palacios	Archbishop of Santiago di Compostela	Spanish
1953	Paul Émile Leger, S.S.	Archbishop of Montreal	Canadian
1953	Valerian Gracias	Archbishop of Bombay	Indian
1953	Josef Wendel	Archbishop of Munich and Freising	German
1958	Giovanni Battista Montini	Archbishop of Milan	Italian
1958	Giovanni Urbani	Patriarch of Venice	Italian
1958	Paolo Giobbe	Member of Roman Curia	Italian
1958	Giuseppe Fietta	Member of Roman Curia	Italian
1958	Fernando Cento	Member of Roman Curia	Italian
1958	Carlo Chiarlo	Member of Roman Curia	Italian
1958	Amleto Giovanni Cicognani	Member of Roman Curia	Italian
1958	José Garibi y Rivera	Archbishop of Guadalajara	Mexican
1958	Antonio Maria Barbieri	Archbishop of Montevideo	Uruguayan
1958	William Godfrey	Archbishop of Westminster, London	British
1958	Carlo Confalonieri	Secretary of the Sacred Congregation for Seminaries and Universities	Italian
1958	Richard James Cushing	Archbishop of Boston	American
1958	Alfonso Castaldo	Archbishop of Naples	Italian
1958	Paul Marie A. Richaud	Archbishop of Bordeaux	French
1958	John F. O'Hara, C.S.C.	Archbishop of Philadelphia	American
1958	José M. Bueno y Monreal	Archbishop of Seville	Spanish
1958	Franziskus König	Archbishop of Vienna	Austrian
1958	Julius Döpfner	Bishop of Berlin	German
1958	Domenico Tardini	Secretary of State of the Holy See	Italian

Cardinal Deacons

1935	Nicola Canali	Grand Penitentiary; President of the Commission charged with the Administration of Vatican City	Italian
1953	Alfredo Ottaviani	Pro-Secretary of the Supreme Congregation of the Holy Office	Italian
1958	Alberto di Jorio	Member of Roman Curia	Italian
1958	Francesco Bracci	Secretary of the Sacred Congregation of the Sacraments	Italian
1958	Francesco Roberti	Secretary of the Sacred Congregation of the Council	Italian
1958	Andrea Jullien	Member of Roman Curia	French

Roman Catholic Pontiffs

Source: The National Catholic Almanac.

St. Peter, of Bethsaida in Galilee, Prince of the Apostles, was the first Pope. He resided first in Antioch and then for twenty-five years in Rome, where he suffered martyrdom in 64 or 67 of the modern era. He was followed by St. Linus.

Name	Birthplace	Accession	End of reign	Name	Birthplace	Accession	End of reign
St. Linus	Tuscia	67	76	Sabinianus	Tuscia	604	606
St. Anacletus (Cletus)	Rome	76	88	Boniface III	Rome	607	607
St. Clement	Rome	88	97	St. Boniface IV	Marsi	608	615
St. Evaristus	Greece	97	105	St. Deusdedit (Adeodatus I)	Rome	615	618
St. Alexander I	Rome	105	115	Boniface V	Naples	619	625
St. Sixtus I	Rome	115	125	Honorius I	Campania	625	638
St. Telesphorus	Greece	125	136	Severinus	Rome	640	640
St. Hyginus	Greece	136	140	John IV	Dalmatia	640	642
St. Pius I	Aquileia	140	155	Theodore I	Greece	642	649
St. Anicetus	Syria	155	166	St. Martin I	Todi	649	655
St. Soter	Campania	166	175	St. Eugenius I	Rome	654	657
St. Eleutherius	Epirus	175	189	St. Vitalian	Segni	657	672
St. Victor I	Africa	189	199	Adeodatus II	Rome	672	676
St. Zephyrinus	Rome	199	217	Donus	Rome	676	678
St. Callistus I	Rome	217	222	St. Agatho	Sicily	678	681
St. Urban I	Rome	222	230	St. Leo II	Sicily	682	683
St. Pontian	Rome	230	235	St. Benedict II	Rome	684	685
St. Anterus	Greece	235	236	John V	Syria	685	686
St. Fabian	Rome	236	250	Conon	Unknown	686	687
St. Cornelius	Rome	251	253	St. Sergius I	Syria	687	701
St. Lucius I	Rome	253	254	John VI	Greece	701	705
St. Stephen I	Rome	254	257	John VII	Greece	705	707
St. Sixtus II	Greece	257	258	Sisinnius	Syria	708	708
St. Dionysius	Unknown	259	288	Constantine	Syria	708	715
St. Felix I	Rome	269	274	St. Gregory II	Rome	715	731
St. Eutychian	Luni	275	283	St. Gregory III	Syria	731	741
St. Caius	Dalmatia	283	296	St. Zachary	Greece	741	752
St. Marcellinus	Rome	296	304	Stephen II	Rome	752	752
St. Marcellus I	Rome	308	309	Stephen III	Rome	752	757
St. Eusebius	Greece	309	309	St. Paul I	Rome	757	767
St. Melchiades	Africa	311	314	Stephen IV	Sicily	768	772
St. Sylvester I	Rome	314	335	Adrian I	Rome	772	795
St. Marcus	Rome	335	336	St. Leo III	Rome	795	816
St. Julius I	Rome	337	352	Stephen V	Rome	816	817
St. Liberius	Rome	352	366	St. Paschal I	Rome	817	824
St. Damasus I	Spain	366	384	Eugenius II	Rome	824	827
St. Siricius	Rome	384	399	Valentine	Rome	827	827
St. Anastasius I	Rome	399	401	Gregory IV	Rome	827	844
St. Innocent I	Albano	401	417	Sergius II	Rome	844	847
St. Zozimus	Greece	417	418	St. Leo IV	Rome	847	855
St. Boniface I	Rome	418	422	Benedict III	Rome	855	858
St. Celestine I	Campania	422	432	St. Nicholas	Rome	858	867
St. Sixtus III	Rome	432	440	Adrian II	Rome	867	872
St. Leo I (the Great)	Tuscia	440	461	John VIII	Rome	872	882
St. Hilary	Sardo	461	468	Marinus I	Gallese	882	884
St. Simplicius	Tivoli	468	483	St. Adrian III	Rome	884	885
St. Felix III (II)	Rome	483	492	Stephen VI	Rome	885	891
St. Gelasius I	Africa	492	496	Formosus	Portus	891	896
Anastasius II	Rome	496	498	Boniface VI	Rome	896	896
St. Symmachus	Sardo	498	514	Stephen VII	Rome	896	897
St. Hormisdas	Frosinone	514	523	Romanus	Gallese	897	897
St. John I	Tuscia	523	526	Theodore II	Rome	897	897
St. Felix IV (III)	Sannio	526	530	John IX	Tivoli	898	900
Boniface II	Rome	530	532	Benedict IV	Rome	900	903
John I	Rome	533	535	Leo V	Ardea	903	903
St. Agapitus I	Rome	535	536	Sergius III	Rome	904	911
St. Silverius	Campania	536	537	Anastasius III	Rome	911	913
Vigilius	Rome	537	555	Landus	Sabina	913	914
Pelagius I	Rome	556	561	John X	Tossignano	914	928
John III	Rome	561	574	Leo VI	Rome	928	931
Benedict I	Rome	575	579	Stephen VIII	Rome	928	931
Pelagius II	Rome	579	590	John XI	Rome	931	935
St. Gregory I (the Great)	Rome	590	604	Leo VII	Rome	935	939
				Stephen IX	Rome	939	942
				Marinus II	Rome	942	946

Name	Birthplace	Access.	End of reign	Name	Birthplace	Access.	End of reign
Agapitus II	Rome	946	955	Bl. Benedict XI	Treviso	1303	1304
John XII	Tusculum	955	964	Clement V	France	1305	1314
Leo VIII	Rome	963	965	John XXII	Cahors	1316	1334
Benedict V	Rome	964	966	Benedict XII	France	1334	1342
John XIII	Rome	965	972	Clement VI	France	1342	1352
Benedict VI	Rome	973	974	Innocent VI	France	1352	1362
Benedict VII	Rome	974	983	Bl. Urban V	France	1362	1370
John XIV	Pavia	983	984	Gregory XI	France	1370	1378
John XV	Rome	985	996	Urban VI	Naples	1378	1389
Gregory V	Saxony	996	999	Boniface IX	Naples	1389	1404
Sylvester II	Alvernia	999	1003	Innocent VII	Sulmona	1404	1406
John XVII	Rome	1003	1003	Gregory XII	Venetia	1406	1415
John XVIII	Rome	1004	1009	Martin V	Rome	1417	1431
Sergius IV	Rome	1009	1012	Eugene IV	Venetia	1431	1447
Benedict VIII	Tusculum	1012	1024	Nicholas V	Sarzana	1447	1455
John XIX	Tusculum	1024	1032	Callistus III	Valencia	1455	1458
Benedict IX*	Tusculum	1032	1044	Plus II	Siena	1458	1464
Sylvester III	Rome	1045	1045	Paul II	Venetia	1464	1471
Benedict IX	....	1045	1045	Sixtus IV	Savona	1471	1484
(2nd time)				Innocent VIII	Genoa	1484	1492
Gregory VI	Rome	1045	1046	Alexander VI	Valencia	1492	1503
Clement II	Saxony	1046	1047	Pius III	Siena	1503	1503
Benedict IX	....	1047	1048	Julius II	Savona	1503	1513
(3rd time)				Leo X	Florence	1513	1521
Damasus II	Bavaria	1048	1048	Adrian VI	Utrecht	1522	1523
St. Leo IX	Egishelm-Dagsburg	1049	1054	Clement VII	Florence	1523	1534
Victor II	Dollnstein-Hirschberg	1055	1057	Paul III	Rome	1534	1549
Stephen X	Lorraine	1057	1058	Julius III	Rome	1550	1555
Nicholas II	Burgundy	1059	1061	Marcellus II	Montepulciano	1555	1555
Alexander II	Milan	1061	1073	Paul IV	Naples	1555	1559
St. Gregory VII	Tuscia	1073	1085	Pius IV	Milan	1559	1565
Bl. Victor III	Benevento	1086	1087	St. Pius V	Bosco	1566	1572
Bl. Urban II	France	1088	1099	Gregory XIII	Bologna	1572	1585
Paschal II	Ravenna	1099	1118	Sixtus V	Grottammare	1585	1590
Gelasius II	Gaeta	1118	1119	Urban VII	Rome	1590	1590
Callistus II	Burgundy	1119	1124	Gregory XIV	Cremona	1590	1591
Honorius II	Flagnano	1124	1130	Innocent IX	Bologna	1591	1591
Innocent II	Rome	1130	1143	Clement VIII	Florence	1592	1605
Celestine II	Città di Castello	1143	1144	Leo XI	Florence	1605	1605
Lucius II	Bologna	1144	1145	Paul V	Rome	1605	1621
Bl. Eugene III	Pisa	1145	1153	Gregory XV	Bologna	1621	1623
Anastasius IV	Rome	1153	1154	Urban VIII	Florence	1623	1644
Adrian IV	England	1154	1159	Innocent X	Rome	1644	1655
Alexander III	Siena	1159	1181	Alexander VII	Siena	1655	1667
Lucius III	Lucca	1181	1185	Clement IX	Pistoia	1667	1669
Urban III	Milan	1185	1187	Clement X	Rome	1670	1676
Gregory VIII	Benevento	1187	1187	Innocent XI	Como	1676	1689
Clement III	Rome	1187	1191	Alexander VIII	Venetia	1689	1691
Celestine III	Rome	1191	1198	Innocent XII	Naples	1691	1700
Innocent III	Anagni	1198	1216	Clement XI	Urbino	1700	1721
Honorius III	Rome	1216	1227	Innocent XIII	Rome	1721	1724
Gregory IX	Anagni	1227	1241	Benedict XIII	Rome	1724	1730
Celestine IV	Milan	1241	1241	Clement XII	Florence	1730	1740
Innocent IV	Genoa	1243	1254	Benedict XIV	Bologna	1740	1758
Alexander IV	Anagni	1254	1261	Clement XIII	Venetia	1758	1769
Urban IV	Troyes	1261	1264	Clement XIV	Rimini	1769	1774
Clement IV	France	1265	1268	Pius VI	Cesena	1775	1799
Bl. Gregory X	Piacenza	1271	1276	Pius VII	Cesena	1800	1823
Bl. Innocent V	Savoy	1276	1276	Leo XII	Fabriziano	1823	1829
Adrian V	Genoa	1276	1276	Pius VIII	Cingoli	1829	1830
John XXI	Portugal	1276	1277	Gregory XVI	Belluno	1831	1846
Nicholas III	Rome	1277	1280	Pius IX	Senigallia	1846	1878
Martin IV	France	1281	1285	Leo XIII	Carpineto	1878	1903
Honorius IV	Rome	1285	1287	St. Pius X	Riese	1903	1914
Nicholas IV	Ascoli	1288	1292	Benedict XV	Genoa	1914	1922
St. Celestine V	Isernia	1294	1294	Pius XI	Desio	1922	1939
Boniface VIII	Anagni	1294	1303	Pius XII	Rome	1939	1958
				John XXIII	Sotto Il Monte	1958	

* If the triple removal of Benedict IX was not valid, Sylvester III, Gregory VI and Clement II were antipopes.

NOTE: This list of Popes, adapted from the *Annuario Pontificio*, is in accordance with the recent revisions made by Monsignor Mercati, Prefect of the Vatican's archives. All Popes before Sylvester I are listed as martyrs; other martyrs were: St. John I, St. Silverius and St. Martin I. The accession year is that during which the Pope was elected.

Archbishops of Canterbury

Sequence	Name	Created	Sequence	Name	Created
1	Augustine (consecrated Bishop 597)	601	50	Robert Winchelsea	1294
2	Laurentius	604	51	Walter Reynolds	1313
3	Mellitus	619	52	Simon Mepeham	1328
4	Justus	624	53	John de Stratford	1333
5	Honorius	627	54	Thomas Bradwardine	1349
6	Deusedit	655	55	Simon Islip	1349
7	Theodorus	668	56	Simon Langham	1366
8	Beorhtweald	692	57	William Whittlesey	1368
9	Tatwine	731	58	Simon of Sudbury	1375
10	Nothelm	735	59	William Courtenay	1381
11	Cuthbeorht	740	60	Thomas Arundel	1396
12	Breguwine	761	61	Roger Walden	1398
13	Jaenbeorht	765	62	Thomas Arundel (restored)	1399
14	Æthelheard	793	63	Henry Chicheley	1414
15	Wulfred	805	64	John Stafford	1443
16	Feologild	832	65	John Kemp	1452
17	Ceolnoth	833	66	Thomas Bourchier	1454
18	Æthelred	870	67	John Morton	1486
19	Plegmund	890	68	Henry Dean	1501
20	Æthelhelm	914	69	William Warham	1503
21	Wulfhelm	923	70	Thomas Cranmer	1533
22	Oda	942	71	Reginald Pole	1556
23	Ælfsige	959	72	Matthew Parker	1559
24	Beorhthelm	959	73	Edmund Grindal	1576
25	Dunstan	959	74	John Whitgift	1583
26	Æthelgar	988	75	Richard Bancroft	1604
27	Sigeric Serlo	990	76	George Abbot	1611
28	Ælfric	995	77	William Laud	1633
29	Ælfheah	1005	78	William Juxon	1660
30	Lyfing	1013	79	Gilbert Sheldon	1663
31	Æthelnoth	1020	80	William Sancroft	1678
32	Eadsige	1038	81	John Tillotson	1691
33	Robert (Champart) of Jumièges	1051	82	Thomas Tenison	1695
34	Stigand	1052	83	William Wake	1716
35	Lanfranc	1070	84	John Potter	1737
36	Anselm	1093	85	Thomas Herring	1747
37	Ralph d'Escures	1114	86	Matthew Hutton	1757
38	William de Corbeil	1123	87	Thomas Secker	1758
39	Theobald	1138	88	Frederick Cornwallis	1768
40	Thomas à Becket	1162	89	John Moore	1783
41	Richard (of Dover)	1174	90	Charles Manners-Sutton	1805
42	Baldwin	1185	91	William Howley	1828
43	Hubert Walter	1193	92	John Bird Sumner	1848
44	Stephen Langton	1207	93	Charles Thomas Longley	1862
45	Richard le Grant (of Wetharshed)	1229	94	Archibald Campbell Tait	1868
46	Edmund Rich	1234	95	Edward White Benson	1883
47	Boniface of Savoy	1245	96	Frederick Temple	1896
48	Robert Kilwardby	1273	97	Randall Thomas Davidson	1903
49	John Pecham (Peckham)	1279	98	Cosmo Gordon Lang	1928
			99	William Temple	1942
			100	Geoffrey Francis Fisher	1945

(NOTE: Anglicans consider the line of Archbishops unbroken from Augustine to the present day. Roman Catholics consider the office vacant since 1558, the death of Pole.)

History of the Christian Church in England

5th century	Arrival in England of Angles, Saxons and Jutes. Church isolated from Rome.	1646	Puritan rebellion. Presbyterianism becomes state religion.
597	Augustine sent to convert Saxons.	1660	Restoration. Power of Church of England restored under Charles II.
1534	Act of Supremacy makes king head of Church of England.	1739	John Wesley founds Methodism.
1554	Church again united with Rome under reign of Mary.	1829	Catholic emancipation.
1558	Church restored to Crown at accession of Elizabeth.	1833-45	Oxford Movement attempts to bring Church of England closer to ideals of ancient Church. This movement continues as important influence.
1611	King James version of Bible.		

Jewish Congregational and Rabbinical Organizations

Central Conference of American Rabbis: 40 W. 68th St., New York 23, N. Y.

Rabbinical Alliance of America: 154 Nassau St., New York 38, N. Y.

Rabbinical Assembly of America: 3080 Broadway, New York 27, N. Y.

Rabbinical Council of America, Inc.: 331 Madison Ave., New York 17, N. Y.

Synagogue Council of America: 110 W. 42nd St., New York 36, N. Y.

Union of American Hebrew Congregations: 838 Fifth Ave., New York 21, N. Y.

Union of Orthodox Rabbis of the U. S. and Canada: 132 Nassau St., New York 38, N. Y.

Union of Orthodox Jewish Congregations of America: 305 Bdw., New York 7, N. Y.

United Synagogue of America: 3080 Broadway, New York 27, N. Y.

Religious and Secular Holidays, 1960

(Legal holidays falling on Sunday are observed on Monday)

NEW YEAR'S DAY—Friday, Jan. 1—A legal holiday in all states and the District of Columbia, New Year's Day has its origin in Roman times, when sacrifices were offered to Janus, the two-faced Roman deity who looked back on the past and forward to the future.

EPIPHANY—Wednesday, Jan. 6—Falls the twelfth day after Christmas and commemorates the manifestation of Jesus as the Son of God, as represented by the adoration of the Magi, the baptism of Jesus, and the miracle of the wine at the marriage feast at Cana. Epiphany originally marked the beginning of the carnival season preceding Lent, and the evening (sometimes the eve) is known as Twelfth Night.

LINCOLN'S BIRTHDAY—Friday, Feb. 12—A legal holiday in many states, this day was first formally observed in Washington, D. C., in 1866, when both houses of Congress gathered for a memorial address in honor of the late President.

ST. VALENTINE'S DAY—Sunday, Feb. 14—This day is the festival of two 3rd-century martyrs, both named St. Valentine. It is not known why this day is associated with lovers. It may derive from an old pagan festival about this time of year, or it may have been inspired by the belief that birds mate on this day.

WASHINGTON'S BIRTHDAY—Monday, Feb. 22—The birthday of George Washington is celebrated as a legal holiday in almost every state of the Union, the District of Columbia, and all territories. The observance began in 1796.

SHROVE TUESDAY—Mar. 1—Falls the day before Ash Wednesday and marks the end of the carnival season, which once began on Epiphany but is now usually celebrated the last three days before Lent. In France, the day is known as Mardi Gras (Fat Tuesday), and Mardi Gras celebrations are also held in several American cities, particularly in New Orleans. The day is sometimes called Pancake Tuesday by the English because of the need of using up fats which were prohibited during Lent.

ASH WEDNESDAY—Mar. 2—The first day of the Lenten season, which lasts forty

days. Having its origin sometime before A.D. 1000, it is a day of public penance and is marked in the Roman Catholic Church by the burning of the palms blessed on the previous Palm Sunday. With his thumb, the priest then marks a cross upon the forehead of each worshipper. The Anglican Church and a few Protestant groups in the United States also celebrate the day, but generally without the use of ashes.

ST. PATRICK'S DAY—Thursday, March 17—St. Patrick, patron saint of Ireland, has been honored in America since the first days of the nation. There are many dinners and meetings and perhaps the most notable part of the observance is the annual St. Patrick's Day parade on Fifth Avenue in New York City.

PALM SUNDAY—April 10—Is observed the Sunday before Easter to commemorate the entry of Jesus into Jerusalem. The procession and the ceremonies introducing the benediction of palms probably had their origin in Jerusalem.

FIRST DAY OF PASSOVER (Pesach)—Tuesday, April 12 (Nisan 15)—The Feast of the Passover, also called the Feast of Unleavened Bread, commemorates the escape of the first-born of the Jews from the Angel of Death, who took from the Egyptians their first-born, thus fulfilling the prophecy of Moses. As the Jews fled Egypt, they ate unleavened bread, and from that time the Jews have allowed no leavening in the houses during Passover, bread being replaced by matzoth.

GOOD FRIDAY—April 15—This day commemorates the Crucifixion, which is retold during services from the Gospel according to St. John. A feature in Roman Catholic churches is the Liturgy of the Passion; there is no Consecration, the Host having been consecrated the previous day. The eating of hot cross buns on this day is said to have started in England.

EASTER SUNDAY—April 17—Observed in all Christian churches, Easter commemorates the Resurrection of Jesus. It is celebrated on the first Sunday after the full moon which occurs on or next after March 21 and is therefore celebrated be-

tween March 22 and April 25 inclusive. This date was fixed by the Council of Nicaea in 325.

ASCENSION DAY—Thursday, May 26—Took place in the presence of His apostles 40 days after the Resurrection of Jesus. It is traditionally held to have occurred on Mount Olivet in Bethany.

MEMORIAL DAY—Monday, May 30—Also known as Decoration Day, Memorial Day is a legal holiday in most of the states and in the territories, and is also observed by the armed forces. In 1868, General John A. Logan, Commander in Chief of the Grand Army of the Republic, issued an order designating the day as one in which the graves of soldiers would be decorated. The holiday was originally devoted to honoring the memory of those who fell in the Civil War, but is now also dedicated to the memory of the dead of all wars.

FIRST DAY OF SHABUOTH (Hebrew Pentecost)—Wednesday, June 1 (Sivan 6)—This festival, sometimes called the Feast of Weeks, or of Harvest, or of the First Fruits, falls fifty days after Passover and originally celebrated the end of the seven-week grain harvesting season. In later tradition, it also celebrated the giving of the Law to Moses on Mt. Sinai, and both aspects have come down to the present.

PENTECOST (Whitsunday)—June 5—This day commemorates the descent of the Holy Ghost upon the Apostles fifty days after the Resurrection. The sermon by the Apostle Peter, which led to the baptism of 3,000 who professed belief, originated the ceremonies that have since been followed. "Whitsunday" is believed to have come from "white Sunday" when, among the English, white robes were worn by those baptized on the day.

FLAG DAY—Tuesday, June 14—This day commemorates the adoption by the Continental Congress on June 14, 1777, of the Stars and Stripes as the U. S. flag. Although it is a legal holiday only in Pennsylvania, President Truman, on Aug. 3, 1949, signed a bill requesting the President to call for its observance each year by proclamation.

INDEPENDENCE DAY—Monday, July 4—The day of the adoption of the Declaration of Independence in 1776, celebrated in all states and territories. The observance began in the next year in the city of Philadelphia.

LABOR DAY—Monday, Sept. 5—Observed the first Monday in September in all states and territories, Labor Day was first celebrated in New York in 1882 under the sponsorship of the Central Labor Union, following the suggestion of Peter J. McGuire, of the Knights of Labor, that the day be set aside in honor of labor.

FIRST DAY OF ROSH HASHANA (Jewish New Year)—Thursday, Sept. 22 (Tishri 1)—This day marks the beginning of the Jewish year 5721 and opens the Ten Days of Penitence closing with Yom Kippur.

YOM KIPPUR (Day of Atonement)—Saturday, Oct. 1 (Tishri 10)—This day marks the end of the Ten Days of Penitence that began with Rosh Hashana. It is described in *Leviticus* as a "Sabbath of rest," and synagogue services begin the preceding sundown, resume the following morning, and continue through the day to sundown.

FIRST DAY OF SUKKOTH (Feast of Tabernacles)—Thursday, Oct. 6 (Tishri 15)—This festival, also known as the Feast of the Ingathering, originally celebrated the fruit harvest, and the name comes from the booths or tabernacles in which the Jews lived during the harvest, although one tradition traces it to the shelters used by the Jews in their wandering through the wilderness. During the festival, many Jews build small huts in their back yards or on the roofs of their houses.

COLUMBUS DAY—Wednesday, Oct. 12—A legal holiday in many states, commemorating the discovery of America by Columbus in 1492. Quite likely the first celebration of Columbus Day was that organized in 1792 by the Society of St. Tammany, or Columbian Order, more widely known as Tammany Hall.

ELECTION DAY (In certain states)—Tuesday, Nov. 8—Since 1845, by Act of Congress, the first Tuesday after the first Monday in November is the date for choosing Presidential electors. State elections are also generally held on this day.

VETERANS DAY—Friday, Nov. 11—Armistice Day was established in 1926 to commemorate the signing in 1918 of the Armistice ending World War I. On June 1, 1954, the name was changed to Veterans Day so as to honor all men and women who have served America in its armed forces.

THANKSGIVING—Thursday, Nov. 24—Observed nationally on the fourth Thursday in November by Act of Congress (1941), the first such national proclamation having been issued by President Lincoln in 1863, on the urging of Mrs. Sarah J. Hale, editor of *Godey's Lady's Book*. Most Americans believe that the holiday dates back to the day of thanks ordered by Governor Bradford of Plymouth Colony in New England in 1621 but scholars point out that days of thanks stem from ancient times.

FIRST SUNDAY OF ADVENT—Nov. 27—Advent is the season in which the faithful must prepare themselves for the advent of the Saviour on Christmas. The four Sun-

days before Christmas are marked by special church services.

FIRST DAY OF HANUKKAH (Festival of Lights)—Wednesday, Dec. 14 (Kislev 25)—This festival was instituted by Judas Maccabaeus in 165 B.C. to celebrate the purification of the Temple of Jerusalem, which had been desecrated three years earlier by Antiochus Epiphanes, who set up a pagan altar and offered sacrifices to Zeus Olympus. In Jewish homes, a light is lighted the first night, and on each succeeding night of the eight-day festival, another is lighted.

CHRISTMAS (Feast of the Nativity)—Sunday, Dec. 25—The most widely cele-

brated holiday of the Christian year, Christmas is observed as the anniversary of the birth of Jesus. Christmas customs are centuries old. The mistletoe, for example, comes from the Druids, who, in hanging the mistletoe, hoped for peace and good fortune. Use of such plants as holly comes from the ancient belief that such plants blossomed at Christmas. Comparatively recent is the Christmas tree, first set up in Germany in the 17th century, and the use of candles on trees developed from the belief that candles appeared by miracle on the trees at Christmas. Colonial Manhattan Islanders introduced the name Santa Claus, a corruption of the Dutch name for the 4th-century Asia-Minor St. Nicholas.

Movable Holidays, 1960 to 1969

CHRISTIAN AND SECULAR

Year	Ash Wed.	Easter	Pentecost	Labor Day	Election Day	Thanksgiving	1st Sun. Advent
1960	Mar. 2	Apr. 17	June 5	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1961	Feb. 15	Apr. 2	May 21	Sept. 4	Nov. 7	Nov. 23	Dec. 3
1962	Mar. 7	Apr. 22	June 10	Sept. 3	Nov. 6	Nov. 22	Dec. 2
1963	Feb. 27	Apr. 14	June 2	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1964	Feb. 12	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1965	Mar. 3	Apr. 18	June 6	Sept. 6	Nov. 2	Nov. 25	Nov. 28
1966	Feb. 23	Apr. 10	May 29	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1967	Feb. 8	Mar. 26	May 14	Sept. 4	Nov. 7	Nov. 23	Dec. 3
1968	Feb. 28	Apr. 14	June 2	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1969	Feb. 19	Apr. 6	May 25	Sept. 1	Nov. 4	Nov. 27	Nov. 30

Shrove Tuesday: 1 day before Ash Wednesday.

Palm Sunday: 7 days before Easter.

Maundy Thursday: 3 days before Easter.

Good Friday: 2 days before Easter.

Holy Saturday: 1 day before Easter.

Ascension Day: 10 days before Pentecost.

Trinity Sunday: 7 days after Pentecost.

Corpus Christi: 11 days after Pentecost.

JEWISH

Year	Purim	1st day Passover	1st day Shabuoth	1st day Rosh Hashana	Yom Kippur	1st day Sukkoth	Simhath Torah	1st day Hanukkah
1960	Mar. 13	Apr. 12	June 1	Sept. 22	Oct. 1	Oct. 6	Oct. 14	Dec. 14
1961	Mar. 2	Apr. 1	May 21	Sept. 11	Sept. 20	Sept. 25	Oct. 3	Dec. 3
1962	Mar. 20	Apr. 19	June 8	Sept. 29	Oct. 8	Oct. 13	Oct. 21	Dec. 22
1963	Mar. 10	Apr. 9	May 29	Sept. 19	Sept. 28	Oct. 3	Oct. 11	Dec. 11
1964	Feb. 27	Mar. 28	May 17	Sept. 7	Sept. 16	Sept. 21	Sept. 29	Nov. 30
1965	Mar. 18	Apr. 17	June 6	Sept. 27	Oct. 6	Oct. 11	Oct. 19	Dec. 19
1966	Mar. 6	Apr. 5	May 25	Sept. 15	Sept. 24	Sept. 29	Oct. 7	Dec. 8
1967	Mar. 26	Apr. 25	June 14	Oct. 5	Oct. 14	Oct. 19	Oct. 27	Dec. 27
1968	Mar. 14	Apr. 13	June 2	Sept. 23	Oct. 2	Oct. 7	Oct. 15	Dec. 16
1969	Mar. 4	Apr. 3	May 23	Sept. 13	Sept. 22	Sept. 27	Oct. 5	Dec. 5

Length of Jewish holidays (O = Orthodox, C = Conservative, R = Reform):

Passover: O & C, 8 days (holy days: first 2 and last 2); R, 7 days (holy days: first and last).

Shabuoth: O & C, 2 days; R, 1 day.

Rosh Hashana: O & C, 2 days; R, 1 day.

Yom Kippur: All groups, 1 day.

Sukkoth: All groups, 7 days (holy days: O & C, first 2; R, first only). O & C observe two additional days: Shemini

Atsereth (Eighth Day of the Feast) and Simhath Torah (Rejoicing of the Law). R observes Shemini Atsereth but not Simhath Torah.

Hanukkah: All groups, 8 days.

NOTE: All holidays begin at sundown on the evening before the date given.

Legal Holidays in the 50 States, D. C., and Puerto Rico

Holidays Widely Observed

January 1, New Year's Day: All states, D. C., Puerto Rico.

February 12, Lincoln's Birthday: Alaska, Arizona, California, Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming.

February 22, Washington's Birthday: All states¹ (except Louisiana, Nevada); D. C., Puerto Rico.

May 30, Memorial (or Decoration) Day: All states (except Alabama, Florida, Georgia, Mississippi, South Carolina, Texas); D. C., Puerto Rico.

July 4, Independence Day: All states, D. C., Puerto Rico.

September (1st Monday), Labor Day: All states, D. C., Puerto Rico.

October 12, Columbus Day: All states (except Alaska, Arkansas, D. C., Hawaii, Idaho, Iowa, Kansas,² Louisiana, Maine, Mississippi, Nevada, North Carolina, Oregon, South Carolina, South Dakota, Tennessee, Virginia, Wyoming); Puerto Rico.

November (1st Tuesday after 1st Monday), Election Day: Arizona, Arkansas, California, Colorado, Delaware, Florida, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maryland, Michigan, Missouri, Montana, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, P.R.

November 11, Veterans Day (formerly Armistice Day): All states, D. C., Puerto Rico.

November (4th Thursday), Thanksgiving Day: All states, D. C., Puerto Rico.

December 25, Christmas: All states, D. C., Puerto Rico.

Other Holidays

January 6, Three Kings' Day: Puerto Rico.

January 11, De Hostos' Birthday: Puerto Rico.

January 19, Robert E. Lee's Birthday: Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia.³

January 20, Inauguration Day (every 4 yrs.): D. C., Louisiana (Baton Rouge, only).

January 30, F. D. Roosevelt's Birthday: Kentucky.

February or March (1 day before Ash Wednesday), Mardi Gras (Shrove Tuesday): Alabama, Florida (in some counties), Louisiana (in some parishes and municipalities).

February 14, Statehood Day: Arizona.

March (first Tuesday), Town Meeting Day: Vermont.

March 2, Texas Independence Day.

March 15, Andrew Jackson's Birthday: Tennessee.

March 17, Evacuation Day: Massachusetts (in Suffolk Co. only).

March or April (2 days before Easter), Good Friday: California (12 M.-3 P.M.), Connecticut, Delaware, Florida, Hawaii, Illinois, Indiana, Louisiana, Maryland, Minnesota, New Jersey, North Dakota, Pennsylvania, Tennessee, Puerto Rico.

March or April (1 day after Easter), Easter Monday: North Carolina.

March 22, Emancipation Day: Puerto Rico.

March 25, Maryland Day.

March 26, Kuhio Day: Hawaii.

March 30, Seward's Day: Alaska.

April (date set by governor), Arbor Day: Wyo.

April 12, Halifax Resolutions Anniversary: N. C.

April 13, Thomas Jefferson's Birthday: Alabama, Oklahoma, Virginia.

April 16, De Diego's Birthday: Puerto Rico.

April 19, Patriots' Day: Maine, Massachusetts.

April 21, San Jacinto Day: Texas.

April 22, Oklahoma Day.

April 22, Arbor Day: Nebraska.

April (last Friday), Arbor Day: Utah.

April 26, Confederate Memorial Day: Alabama, Florida, Georgia, Mississippi.

April (4th Monday), Fast Day: New Hampshire.

May 1, Bird Day: Oklahoma.

May 4, Rhode Island Independence Day.

May (2nd Sunday), Mother's Day: Ariz., Okl.

May 10, Confederate Memorial Day: North Carolina, South Carolina.

May 20, Mecklenburg Independence Day: N. C.

June 3, Jefferson Davis' Birthday: Alabama, Florida, Georgia, Kentucky,⁴ Louisiana,⁴ Mississippi, South Carolina, Tennessee,⁴ Texas.

June 9, Senior Citizen's Day: Oklahoma.

June 11, Kamehameha Day: Hawaii.

June 14, Flag Day: Pennsylvania.

June 17, Bunker Hill Day: Massachusetts (in Suffolk Co. only).

June 20, West Virginia Day.

July 13, Nathan Bedford Forrest's Birthday: Tenn.

July 17, Muñoz Rivera's Birthday: Puerto Rico.

July 24, Pioneer Day: Utah.

July 25, Constitution Day: Puerto Rico.

July 27, Barbosa's Birthday: Puerto Rico.

August 1, Colorado Day.

August 14, V-J Day: Ark., R. I.

August 16, Bennington Battle Day: Vermont.

August 30, Huey P. Long Day: Louisiana.

September (1st Saturday after full moon), Indian Day: Oklahoma.

September 9, Admission Day: California.

September 12, Defenders' Day: Maryland.

September 16, Cherokee Strip Day: Oklahoma.

October (2nd Tuesday), Election Day: Alaska.

October 10, Oklahoma Historical Day.

October 18, Alaska Day.

October 31, Nevada Day

November 1, All Saints' Day: Louisiana.

November 4, Will Rogers Day: Oklahoma.

November 11, Admission Day: Washington.

November 19, Discovery Day: Puerto Rico.

December 26, Day after Christmas: S. C.

¹ Designated Presidents' Day in Hawaii. ² However, declared public holiday. ³ Called Lee-Jackson Day. ⁴ Called Confederate Memorial Day.

AWARDS



NOBEL PRIZES

The Nobel prizes are awarded under the will of Alfred Bernhard Nobel, Swedish chemist and engineer, who died in 1896. The interest of the fund is divided annually among the persons who have made the most outstanding contributions in the field of physics, chemistry, and physiology or medicine, who have produced the most distinguished literary work of an idealist tendency, and who have contributed most toward world peace.

The prizes for physics and chemistry are awarded by the Swedish Academy of Science in Stockholm, the one for physiology or medicine by the Caroline Medical Institute in Stockholm, that for literature by the academy in Stockholm, and that for peace by a committee of five elected by the Norwegian Storting. The distribution of prizes was begun on December 10, 1901, the anniversary of Nobel's death. The amount of each prize varies with the income from the fund and since 1936 has stood at approximately £8,000.

No Nobel prizes were awarded for 1940, 1941 and 1942; prizes for Literature and Peace were not awarded for 1943.

Year	Literature	Peace
1901	René F. A. Sully Prudhomme (France)	Henri Dunant (Switzerland) and Frederick Passy (France)
1902	Theodor Mommsen (Germany)	Elie Ducommun and Albert Gobat (Switzerland)
1903	Björnsterne Björnson (Norway)	Sir William R. Cremer (England)
1904	Frédéric Mistral (France) and José Echegaray (Spain)	Institut de Droit International (Belgium)
1905	Henryk Sienkiewicz (Poland)	Bertha von Suttner (Austria)
1906	Giosuè Carducci (Italy)	Theodore Roosevelt (U. S.)
1907	Rudyard Kipling (England)	Ernesto T. Moneta (Italy) and Louis Renault (France)
1908	Rudolf Eucken (Germany)	Klas P. Arnoldson (Sweden) and Frederik Bajer (Denmark)
1909	Selma Lagerlöf (Sweden)	Auguste M. F. Beernaert (Belgium) and Baron Paul H. B. d'Estournelles de Constant de Rebecque (France)
1910	Paul von Heyse (Germany)	Bureau International Permanent de la Paix (Switzerland)
1911	Maurice Maeterlinck (Belgium)	Tobias M. C. Asser (Holland) and Alfred H. Fried (Austria)
1912	Gerhart Hauptmann (Germany)	Elihu Root (U. S.)
1913	Rabindranath Tagore (India)	Henri La Fontaine (Belgium)
1915	Romain Rolland (France)	No award
1916	Verner von Heidenstam (Sweden)	No award
1917	Karl Gjellerup (Denmark) and Henrik Pontoppidan (Denmark)	International Red Cross
1919	Carl Spitteler (Switzerland)	Woodrow Wilson (U. S.)
1920	Knut Hamsun (Norway)	Léon Bourgeois (France)
1921	Anatole France (France)	Karl H. Branting (Sweden) and Christian L. Lange (Norway)
1922	Jacinto Benavente (Spain)	Fridtjof Nansen (Norway)
1923	William B. Yeats (Ireland)	No award
1924	Wladyslaw Reymont (Poland)	No award
1925	George Bernard Shaw (England)	Sir Austen Chamberlain (England) and Charles G. Dawes (U. S.)
1926	Grazia Deledda (Italy)	Aristide Briand (France) and Gustav Stresemann (Germany)
1927	Henri Bergson (France)	Ferdinand Buisson (France) and Ludwig Quidde (Germany)
1928	Sigrid Undset (Norway)	No award
1929	Thomas Mann (Germany)	Frank B. Kellogg (U. S.)
1930	Sinclair Lewis (U. S.)	Lars O. J. Söderblom (Sweden)
1931	Erik A. Karlfeldt (Sweden)	Jane Addams and Nicholas M. Butler (U. S.)
1932	John Galsworthy (England)	No award
1933	Ivan G. Bunin (Russia)	Sir Norman Angell (England)
1934	Luigi Pirandello (Italy)	Arthur Henderson (England)
1935	No award	Karl von Ossietzky (Germany)
1936	Eugene O'Neill (U. S.)	Carlos de S. Lamas (Argentina)
1937	Roger Martin du Gard (France)	Lord Cecil of Chelwood (England)
1938	Pearl S. Buck (U. S.)	Office International Nansen pour les Réfugiés (Switzerland)
1939	Frans Eemil Sillanpää (Finland)	No award
1944	Johannes V. Jensen (Denmark)	International Red Cross
1945	Gabriela Mistral (Chile)	Cordell Hull (U. S.)
1946	Hermann Hesse (Switzerland)	Emily G. Balch and John R. Mott (U. S.)

Year	Literature	Peace
1947	André Gide (France)	Am. Friends Service Com. (U. S.), Brit. Soc. of Friends' Service Council (Eng.)
1948	Thomas Stearns Eliot (England)	No award
1949	William Faulkner (U. S.)	Lord John Boyd Orr (Scotland)
1950	Bertrand Russell (England)	Ralph J. Bunche (U. S.)
1951	Pär Lagerkvist (Sweden)	Léon Jouhaux (France)
1952	François Mauriac (France)	Albert Schweitzer (Fr. Eq. Af.)
1953	Sir Winston Churchill (England)	George C. Marshall (U. S.)
1954	Ernest Hemingway (U. S.)	Office of U.N. High Commissioner for Refugees
1955	Halldór Kiljan Laxness (Iceland)	No award
1956	Juan Ramón Jiménez (Spain)	No award
1957	Albert Camus (France)	Lester B. Pearson (Canada)
1958	Boris Pasternak (U.S.S.R.) (declined prize)	Rev. Dominique Georges Henri Pire (Belgium)

Year	Physics	Chemistry	Medicine
1901	Wilhelm K. Roentgen, for discovery of Roentgen rays.	Jacobus H. van't Hoff, for laws of chemical dynamics and osmotic pressure in solutions.	Emil A. von Behring, for work on serum therapy against diphtheria.
1902	Hendrik A. Lorentz and Pieter Zeeman, for work on influence of magnetism upon radiation.	Emil Fischer, for experiments in sugar and purin groups of substances.	Sir Ronald Ross, for work on malaria.
1903	A. Henri Becquerel, work on discovery of spontaneous radioactivity.	Svante A. Arrhenius, for his electrolytic theory of dissociation.	Niels R. Finsen, for his treatment of lupus vulgaris, with concentrated light rays.
	Pierre and Marie Curie; study of radiation.		
1904	John Strutt (Lord Rayleigh) for discovery of argon in investigating gas density.	Sir William Ramsay; discovery and determination of place of inert gaseous elements in air.	Ivan P. Pavlov, for work on the physiology of digestion.
1905	Philipp Lenard, for work with cathode rays.	Adolf von Baeyer, for work on organic dyes and hydroaromatic combinations.	Robert Koch, for work on tuberculosis.
1906	Joseph J. Thomson, for investigations on passage of electricity through gases.	Henri Moissan, for isolation of fluorine, and introduction of electric furnace.	Camillo Golgi and Santiago Ramón y Cajal, for work on structure of the nervous system.
1907	Albert A. Michelson, for spectroscopic and meteorologic investigations.	Eduard Buchner; discovery of cell-less fermentation and investigations in biological chemistry.	Charles L. A. Laveran, for work with protozoa in the generation of disease.
1908	Gabriel Lippmann, for method of reproducing colors by photography.	Ernest Rutherford, for investigations into disintegration of elements and chemistry of radioactive substances.	Paul Ehrlich and Élie Metchnikoff, for work on immunity.
1909	Guglielmo Marconi and Ferdinand Braun, for development of wireless.	Wilhelm Ostwald, for work on catalysis and investigations into chemical equilibrium and reaction rates.	Theodor Kocher, for work on the thyroid gland.
1910	Johannes D. van der Waals, for work with the equation of state for gases and liquids.	Otto Wallach, for work in the field of alicyclic compounds.	Albrecht Kossel, for achievements in the chemistry of the cell.
1911	Wilhelm Wien, for his laws governing the radiation of heat.	Marie Curie, for discovery of elements radium and polonium.	Allvar Gullstrand, for work on the dioptics of the eye.
1912	Gustaf Dalén, for discovery of automatic regulators used in lighting lighthouses and light buoys.	Victor Grignard, for reagent discovered by and named after him. Paul Sabatier, for the methods of hydrogenating organic compounds.	Alexis Carrel, for work on vascular ligature and grafting of blood vessels and organs.

Year	Physics	Chemistry	Medicine
1913	H. Kamerlingh-Onnes, for work leading to production of liquid helium.	Alfred Werner, for linking up atoms within the molecule.	Charles Richet, for work on anaphylaxis.
1914	Max von Laue, for discovery of diffraction of Roentgen rays passing through crystals.	Theodore W. Richards, for determining atomic weight of many chemical elements.	Robert Bárány, for work on physiology and pathology of the vestibular system.
1915	W. H. Bragg and W. L. Bragg, for analysis of crystal structure by means of X rays.	Richard Willstätter, for research into coloring matter of plants, especially chlorophyll.	No award.
1917	Charles G. Barkla, discovery of Roentgen radiation of the elements.	No award.	No award.
1918	Max Planck, for discoveries in connection with quantum theory.	Fritz Haber, for synthetic production of ammonia.	No award.
1919	Johannes Stark, discovery of Doppler effect in Canal rays and decomposition of spectrum lines by electric fields.	No award.	Jules Bordet, for discoveries in connection with immunity.
1920	Charles E. Guillaume, for discoveries of anomalies in nickel steel alloys.	Walther Nernst, for work in thermochemistry.	August Krogh, discovery of regulation of capillaries' motor mechanism.
1921	Albert Einstein, for discovery of the law of the photoelectric effect.	Frederick Soddy, for investigations into origin and nature of isotopes.	No award.
1922	Niels Bohr, for investigations of structure of atoms and radiations emanating from them.	Francis W. Aston, for discovery of isotopes in nonradioactive elements and for discovery of the whole number rule.	In 1923 the 1922 prize was divided between Archibald V. Hill for discovery relating to heat-production in muscles; and Otto Meyerhof, for correlation between consumption of oxygen and production of lactic acid in muscles.
1923	Robert A. Millikan, work on elementary charge of electricity and photoelectric phenomena.	Fritz Pregl, for method of microanalysis of organic substances discovered by him.	Frederick G. Banting and John J. R. Macleod, for discovery of insulin.
1924	Karl M. G. Siegbahn, for investigations in X-ray spectroscopy.	No award.	Willem Einthoven, for discovering the mechanism of the electrocardiogram.
1925	James Franck and Gustav Hertz, for discovery of laws governing impact of electrons upon atoms.	In 1926 the 1925 prize was awarded to Richard Zsigmondy, for work on the heterogeneous nature of colloid solutions.	No award.
1926	Jean B. Perrin, for works on discontinuous structure of matter and discovery of the equilibrium of sedimentation.	Theodor Svedberg, for work on disperse systems.	Johannes Fibiger, for discovery of the <i>Spiroptera</i> carcinoma.
1927	Arthur H. Compton, discovery of Compton phenomenon; and Charles T. R. Wilson, for method of perceiving paths taken by electrically charged particles.	In 1928 the 1927 prize was awarded to Heinrich Wieland, for investigations of bile acids and kindred substances.	Julius Wagner-Jauregg, for use of malaria inoculation in treatment of dementia paralytica.

Year	Physics	Chemistry	Medicine
1928	In 1929 the 1928 prize was awarded to Owen W. Richardson, for work on the phenomenon of thermionics and discovery of the Richardson Law.	Adolf Windaus, for investigations on constitution of the sterols and their connection with vitamins.	Charles Nicolle, for work on typhus exanthematicus.
1929	Prince Louis Victor de Broglie, for discovery of the wave character of electrons.	Arthur Harden and Hans K. A. S. von Euler-Chelpin, for research of fermentation of sugars.	Christiaan Eijkman, for discovery of the antineuritic vitamins; and Sir Frederick G. Hopkins, for discovery of growth-promoting vitamins.
1930	Sir Chandrasekhara V. Raman, for work on diffusion of light and discovery of the Raman effect.	Hans Fischer, for work on coloring matter of blood and leaves and for his synthesis of hemin.	Karl Landsteiner, for discovery of human blood groups.
1931	No award.	Karl Bosch and Friedrich Bergius, for invention and development of chemical high-pressure methods.	Otto H. Warburg, for discovery of the character and mode of action of the respiratory ferment.
1932	In 1933 the prize for 1932 was awarded to Werner Heisenberg, for creation of the quantum mechanics.	Irving Langmuir, for work in realm of surface chemistry.	Sir Charles S. Sherrington and Edgar D. Adrian, for discoveries of the function of the neuron.
1933	Erwin Schrödinger and Paul A. M. Dirac, for discovery of new fertile forms of the atomic theory.	No award.	Thomas H. Morgan, for discoveries on hereditary function of the chromosomes.
1934	No award.	Harold C. Urey, for discovery of heavy hydrogen.	George H. Whipple, George R. Minot, and William P. Murphy, for discovery of liver therapy against anemias.
1935	James Chadwick, for discovery of the neutron.	Frédéric and Irène Joliot-Curie, for synthesis of new radioactive elements.	Hans Spemann, for discovery of the organizer-effect in embryonic development.
1936	Victor F. Hess, for discovery of cosmic radiation; and Carl D. Anderson, for discovery of the positron.	Peter J. W. Debye, for investigations on dipole moments and diffraction of X rays and electrons in gases.	Sir Henry H. Dale and Otto Loewi, for discoveries on chemical transmission of nerve impulses.
1937	Clinton J. Davisson and George P. Thomson, for discovery of diffraction of electrons by crystals.	Walter N. Haworth, for research on carbohydrates and vitamin C; and Paul Karrer, for work on carotenoids, flavins and vitamins A and B.	Albert Szent-Györgyi von Nagrapolt, for discoveries on biological combustion.
1938	Enrico Fermi, for identification of new radioactivity elements and discovery of nuclear reactions effected by slow neutrons.	Richard Kuhn, for carotenoid study and vitamin research (declined the prize).	Cornellie Heymans, for importance of sinus and aorta mechanisms in the regulation of respiration.
1939	Ernest Orlando Lawrence, for the development of the cyclotron.	Adolf Friedrich Johann Butenandt, for work on sexual hormones (declined the prize); and Leopold Růžička, work with polymethylenes.	Gerhard Domagk, antibacterial effect of prontosilate.

Year	Physics	Chemistry	Medicine
1943	Otto Stern, for detection of magnetic momentum of protons.	George Hevesy De Heves, for work on use of isotopes as indicators.	Henrik Dam, Edward A. Doisy for the analysis of Vitamin K.
1944	Isidor Isaac Rabi, for work on magnetic movements of atomic particles.	Otto Hahn, for work on atomic fission.	Joseph Erlanger and Herbert Spencer Gasser, for work on functions of the nerve threads.
1945	Wolfgang Pauli, for work on atomic fissions.	Artturi Ilmari Virtanen, for research in the field of conservation of fodder.	Sir Alexander Fleming, Ernst Boris Chain, and Sir Howard Florey, for discovery of penicillin.
1946	Percy Williams Bridgman, studies and inventions in high-pressure physics.	James B. Sumner, crystallizing of enzymes. John H. Northrop and Wendell M. Stanley, preparing enzymes and virus proteins in pure form.	Herman J. Muller, hereditary effects of X ray on genes.
1947	Sir Edward Appleton, for discovery of layer which reflects radio short waves in the ionosphere.	Sir Robert Robinson, for research in plant substances.	Carl F. and Gerty T. Cori, for work on animal starch metabolism; Bernardo A. Houssay, for study of pituitary.
1948	Patrick M. S. Blackett, for improvement on Wilson chamber, discoveries in cosmic radiation.	Arne Tiselius, for biochemical discoveries and isolation of mouse paralysis virus.	Paul Mueller, for discovery of insect-killing properties of DDT.
1949	Hideki Yukawa, for mathematical prediction, 14 years ago, of the meson.	William Francis Giauque, for research in thermodynamics, especially effects of low temperature.	Walter Rudolf Hess, for research on brain control of body; and Antonio Caetano de Abreu Freire Egas Moniz, for development of brain operation.
1950	Cecil Frank Powell, for method of photographic study of atom nucleus, and for discoveries about mesons.	Otto Diels and Kurt Alder for discovery of diene synthesis enabling scientists to study structure of organic matter.	Philip S. Hench, Edward C. Kendall, and Tadeus Reichstein, for discoveries about hormones of adrenal cortex.
1951	Sir John Douglas Cockcroft and Ernest T. S. Walton, for work in 1932 on transmutation of atomic nuclei.	Glenn T. Seaborg and Edwin M. McMillan, for discovery of plutonium.	Max Theiler, for development of anti-yellow-fever vaccine.
1952	Edward Mills Purcell and Felix Bloch, for work in measurement of magnetic fields in atomic nuclei.	Archer John Porter Martin and Richard Laurence Millington Synge, for development of partition chromatography.	Selman A. Waksman, for co-discovery of streptomycin.
1953	Fritz Zernike, for development of "phase contrast" microscope.	Hermann Staudinger, for research in giant molecules.	Fritz A. Lipmann and Hans Adolph Krebs, for studies of living cells.
1954	Max Born, for work in quantum mechanics; and Walther Bothe, for work in cosmic radiation.	Linus Pauling, for study of forces holding together protein and other molecules.	John F. Enders, Thomas H. Weller and Frederick C. Robbins, for work with cultivation of polio virus.
1955	Polykarp Kusch and Willis E. Lamb, for work in atomic measurement.	Vincent du Vigneaud, for work on pituitary hormones.	Hugo Theorell, for work on oxidation enzymes.
1956	William Shockley, Walter H. Brattain and John Bardeen for developing electronic transistor.	Cyril Hinshelwood and Nikolai N. Semenov for parallel research on chemical reaction kinetics.	Dickinson W. Richards, Jr., André F. Cournand and Werner Forssmann for new techniques in heart disease.

Year	Physics	Chemistry	Medicine
1957	Tsung Dao Lee and Chen Ning Yang, for disproving principle of conservation of parity.	Sir Alexander Todd, for research with chemical compounds that are factors in heredity.	Daniel Bovet, for development of drugs to relieve allergies and relax muscles during surgery.
1958	Pavel A. Cherenkov, Ilya M. Frank, and Igor E. Tamm, for work resulting in development of cosmic-ray counter.	Frederick Sanger, for determining molecular structure of insulin.	Joshua Lederberg, for work with genetic mechanisms; George W. Beadle and Edward L. Tatum, for discovering how genes transmit hereditary characteristics.

(For 1959 Nobel prize winners, see Nobel prizes in index.)

Pulitzer Prize Awards

Source: Columbia University, New York. (For years not listed, no award was made.)

Pulitzer Prizes in Journalism

Meritorious Public Service		Editorial	
1918 <i>New York Times</i>	1955 <i>Columbus (Ga.) Ledger & Sunday Ledger-Enquirer</i>	1917 <i>New York Tribune</i>	1937 JOHN W. OWENS (<i>Baltimore Sun</i>)
1919 <i>Milwaukee Journal</i>	1956 <i>Watsonville (Calif.) Register-Pajaronian</i>	1918 <i>Louisville Courier-Journal</i>	1938 W. W. WAYMACK (<i>Des Moines Register & Tribune</i>)
1921 <i>Boston Post</i>	1957 <i>Chicago Daily News</i>	1920 HARVEY E. NEWBRANCH (<i>Omaha Evening World-Herald</i>)	1939 RONALD G. CALLVERT (<i>Portland Oregonian</i>)
1922 <i>New York World</i>	1958 (<i>Little Rock</i>) <i>Arkansas Gazette</i>	1922 FRANK M. O'BRIEN (<i>New York Herald</i>)	1940 BART HOWARD (<i>St. Louis Post-Dispatch</i>)
1923 <i>Memphis Commercial Appeal</i>	1959 <i>Utica (N. Y.) Observer Dispatch and the Utica Daily Press</i>	1923 WILLIAM ALLEN WHITE (<i>Emporia [Kans.] Gazette</i>)	1941 REUBEN MAURY (<i>New York Daily News</i>)
1924 <i>New York World</i>		1924 <i>Boston Herald</i> ; Special prize: FRANK I. COBB (<i>New York World</i>)	1942 GEOFFREY PARSONS (<i>New York Herald Tribune</i>)
1926 <i>Columbus (Ga.) Enquirer Sun</i>		1925 <i>Charleston (S. C.) News and Courier</i>	1943 FORREST W. SEYMOUR (<i>Des Moines Register & Tribune</i>)
1927 <i>Canton (Ohio) Daily News</i>		1926 <i>New York Times</i> (EDWARD M. KINGSBURY)	1944 <i>Kansas City (Mo.) Star</i> (HENRY J. HASKELL)
1928 <i>Indianapolis Times</i>		1927 <i>Boston Herald</i> (F. LAURISTON BULLARD)	1945 GEORGE W. POTTER (<i>Providence [R. I.] Journal-Bulletin</i>)
1929 <i>New York Evening World</i>		1928 GROVER CLEVELAND HALL (<i>Montgomery [Ala.] Advertiser</i>)	1946 HODDING CARTER ([<i>Greenville, Miss.</i>] <i>Delta Democrat-Times</i>)
1931 <i>Atlanta Constitution</i>		1929 LOUIS ISAAC JAFFE (<i>Norfolk Virginian-Pilot</i>)	1947 WILLIAM H. GRIMES (<i>Wall Street Journal</i>)
1932 <i>Indianapolis News</i>		1931 CHARLES S. RYCKMAN (<i>Fremont [Nebr.] Tribune</i>)	1948 VIRGINIUS DABNEY (<i>Richmond Times-Dispatch</i>)
1933 <i>New York World-Telegram</i>		1933 <i>Kansas City (Mo.) Star</i>	1949 JOHN H. CRIDER (<i>Boston Herald</i>); HERBERT ELLISTON (<i>Washington Post</i>)
1934 <i>Medford (Oreg.) Mail Tribune</i>		1934 E. P. CHASE (<i>Atlantic [Iowa] News Telegraph</i>)	1950 CARL M. SAUNDERS (<i>Jackson [Mich.] Citizen Patriot</i>)
1935 <i>Sacramento Bee</i>		1936 FELIX MORLEY (<i>Washington [D.C.] Post</i>); GEORGE B. PARKER (<i>Scripps-Howard Newspapers</i>)	1951 WILLIAM H. FITZPATRICK (<i>New Orleans States</i>)
1936 <i>Cedar Rapids (Iowa) Gazette</i>			1952 LOUIS LACOSS (<i>St. Louis Globe-Democrat</i>)
1937 <i>St. Louis Post-Dispatch</i>			1953 VERMONT C. ROYSTER (<i>Wall Street Journal</i>)
1938 <i>Bismarck (N. Dak.) Tribune</i>			1954 <i>Boston Herald</i> (DON MURRAY)
1939 <i>Miami Daily News</i>			1955 <i>Detroit Free Press</i> (ROYCE HOWES)
1940 <i>Waterbury (Conn.) Republican & American</i>			1956 LAUREN K. SOTH (<i>Des Moines Register & Tribune</i>)
1941 <i>St. Louis Post-Dispatch</i>			
1942 <i>Los Angeles Times</i>			
1943 <i>Omaha World-Herald</i>			
1944 <i>New York Times</i>			
1945 <i>Detroit Free Press</i>			
1946 <i>Scranton (Pa.) Times</i>			
1947 <i>Baltimore Sun</i>			
1948 <i>St. Louis Post-Dispatch</i>			
1949 (<i>Lincoln</i>) <i>Nebraska State Journal</i>			
1950 <i>Chicago Daily News</i> ; <i>St. Louis Post-Dispatch</i>			
1951 <i>Miami Herald</i> ; <i>Brooklyn Eagle</i>			
1952 <i>St. Louis Post-Dispatch</i>			
1953 <i>Whiteville (N. C.) News Reporter</i> ; <i>Tabor City (N. C.) Tribune</i>			
1954 (<i>Garden City, L. I.</i>) <i>Newsday</i>			

- 1957 BUFORD BOONE (*Tuscaloosa [Ala.] News*)
 1958 HARRY S. ASHMORE (*Arkansas Gazette*)
 1959 RALPH MCGILL (*Atlanta Constitution*)

Correspondence

- 1929 PAUL SCOTT MOWRER (*Chicago Daily News*)
 1930 LELAND STOWE (*New York Herald Tribune*)
 1931 H. R. KNICKERBOCKER (*Philadelphia Public Ledger and New York Evening Post*)
 1932 WALTER DURANTY (*New York Times*); CHARLES G. ROSS (*St. Louis Post-Dispatch*)
 1933 EDGAR ANSEL MOWRER (*Chicago Daily News*)
 1934 FREDERICK T. BIRCHALL (*New York Times*)
 1935 ARTHUR KROCK (*New York Times*)
 1936 WILFRED C. BARBER (*Chicago Tribune*)
 1937 ANNE O'HARE McCORMICK (*New York Times*)
 1938 ARTHUR KROCK (*New York Times*)
 1939 LOUIS P. LOCHNER (Associated Press)
 1940 OTTO D. TOLISCHUS (*New York Times*)
 1941 Group award*
 1942 CARLOS P. ROMULO (*Philippines Herald*)
 1943 HANSON W. BALDWIN (*New York Times*)
 1944 ERNIE FYLE (*Scripps-Howard Newspaper Alliance*)
 1945 HAROLD V. (HAL) BOYLE (Associated Press)
 1946 ARNALDO CORTESI (*New York Times*)
 1947 BROOKS ATKINSON (*New York Times*)
 1948 Discontinued

Cartoon

- 1922 ROLLIN KIRBY (*New York World*)
 1924 JAY NORWOOD DARLING (*New York Tribune*)
 1925 ROLLIN KIRBY (*New York World*)
 1926 D. R. FITZPATRICK (*St. Louis Post-Dispatch*)
 1927 NELSON HARDING (*Brooklyn Eagle*)
 1928 NELSON HARDING (*Brooklyn Eagle*)
 1929 ROLLIN KIRBY (*New York World*)

- 1930 CHARLES R. MACAULEY (*Brooklyn Eagle*)
 1931 EDMUND DUFFY (*Baltimore Sun*)
 1932 JOHN T. MCCUTCHEON (*Chicago Tribune*)
 1933 H. M. TALBURT (*Washington Daily News*)
 1934 EDMUND DUFFY (*Baltimore Sun*)
 1935 ROSS A. LEWIS (*Milwaukee Journal*)
 1937 C. D. BATCHELOR (*New York Daily News*)
 1938 VAUGHN SHOEMAKER (*Chicago Daily News*)
 1939 CHARLES G. WERNER (*Daily Oklahoman [Oklahoma City]*)
 1940 EDMUND DUFFY (*Baltimore Sun*)
 1941 JACOB BURCK (*Chicago Times*)
 1942 HERBERT L. BLOCK (NEA Service)
 1943 JAY NORWOOD DARLING (*New York Herald Tribune*)
 1944 CLIFFORD K. BERRYMAN (*Washington [D. C.] Evening Star*)
 1945 BILL MAULDIN (United Features Syndicate)
 1946 BRUCE ALEXANDER RUSSELL (*Los Angeles Times*)
 1947 VAUGHN SHOEMAKER (*Chicago Daily News*)
 1948 REUBEN L. GOLDBERG (*New York Sun*)
 1949 LUTE PEASE (*Newark Evening News*)
 1950 JAMES T. BERRYMAN (*Washington [D. C.] Evening Star*)
 1951 REG (REGINALD W.) MANNING (*Arizona Republic [Phoenix]*)
 1952 FRED L. PACKER (*New York Mirror*)
 1953 EDWARD D. KUEKES (*Cleveland Plain Dealer*)
 1954 HERBERT L. BLOCK (*Washington [D. C.] Post & Times-Herald*)
 1955 DANIEL R. FITZPATRICK (*St. Louis Post-Dispatch*)
 1956 ROBERT YORK (*Louisville Times*)
 1957 TOM LITTLE (*Nashville Tennessean*)
 1958 BRUCE M. SHANKS (*Buffalo Evening News*)
 1959 BILL MAULDIN (*St. Louis Post-Dispatch*)

News Photography

- 1942 MILTON BROOKS (*Detroit News*)
 1943 FRANK NOEL (Associated Press)

- 1944 FRANK FILAN (Associated Press); EARLE L. BUNKER (*Omaha World-Herald*)
 1945 JOE ROSENTHAL (Associated Press)
 1947 ARNOLD HARDY
 1948 FRANK CUSHING (*Boston Traveler*)
 1949 NAT FEIN (*New York Herald Tribune*)
 1950 BILL CROUCH (*Oakland Tribune*)
 1951 MAX DESFOR (Associated Press)
 1952 JOHN ROBINSON & DON ULTANG (*Des Moines Register & Tribune*)
 1953 WILLIAM M. GALLAGHER (*Flint [Mich.] Journal*)
 1954 MRS. WALTER M. SCHAUB
 1955 JOHN L. GAUNT, JR. (*Los Angeles Times*)
 1956 *New York Daily News*
 1957 HARRY A. TRASK (*Boston Traveler*)
 1958 WILLIAM C. BEALL (*Washington Daily News*)
 1959 WILLIAM SEAMAN (*Minneapolis Star*)

National Telegraphic Reporting

- 1942 LOUIS STARK (*New York Times*)
 1944 DEWEY L. FLEMING (*Baltimore Sun*)
 1945 JAMES B. RESTON (*New York Times*)
 1946 EDWARD A. HARRIS (*St. Louis Post-Dispatch*)
 1947 EDWARD T. FOLLIARD (*Washington [D. C.] Post*)

National Reporting

- 1948 BERT ANDREWS (*New York Herald Tribune*); NAT S. FINNEY (*Minneapolis Tribune*)
 1949 C. F. TRUSSELL (*New York Times*)
 1950 EDWIN O. GUTHMAN (*Seattle Times*)
 1952 ANTHONY LEVIERO (*New York Times*)
 1953 DON WHITEHEAD (Associated Press)
 1954 RICHARD WILSON (Cowles Newspapers)
 1955 ANTHONY LEWIS (*Washington Daily News*)
 1956 CHARLES L. BARTLETT (*Chattanooga Times*)
 1957 JAMES RESTON (*New York Times*)
 1958 RELMAN MORIN (Associated Press) and CLARK MOLLENHOFF (*Des Moines Register & Tribune*)
 1959 HOWARD VAN SMITH (*Miami News*)

*For the public services and the individual achievements of American news reporters in the war zones.

International Telegraphic Reporting

- 1942 LAURENCE EDMUND ALLEN (Associated Press)
 1943 IRA WOLFERT (North American Newspaper Alliance, Inc.)
 1944 DANIEL DE LUCE (Associated Press)
 1945 MARK S. WATSON (Baltimore Sun)
 1946 HOMER W. BIGART (New York Herald Tribune)
 1947 EDDY GILMORE (Associated Press)

International Reporting

- 1948 PAUL W. WARD (Baltimore Sun)
 1949 PRICE DAY (Baltimore Sun)
 1950 EDMUND STEVENS (Christian Science Monitor)
 1951 KEYES BEECH & FRED SPARKS (Chicago Daily News); HOMER BIGART & MARGUERITE HIGGINS (New York Herald Tribune); RELMAN MORIN & DON WHITEHEAD (Associated Press)
 1952 JOHN M. HIGHTOWER (Associated Press)
 1953 AUSTIN C. WEHRWEIN (Milwaukee Journal)
 1954 JIM G. LUCAS (Scripps-Howard Newspapers)
 1955 HARRISON E. SALISBURY (New York Times)
 1956 WILLIAM RANDOLPH HEARST, JR., & FRANK CONNIFF (Hearst newspapers) & KINGSBURY SMITH (INS)
 1957 RUSSELL JONES (United Press)
 1958 New York Times
 1959 JOSEPH MARTIN & PHILIP SANTORA (New York Daily News)

Reporting

- 1917 HERBERT B. SWOPE (New York World)
 1918 HAROLD A. LITLEDALE (New York Evening Post)
 1920 JOHN J. LEARY, JR. (New York World)
 1921 LOUIS SEIBOLD (New York World)
 1922 KIRKE & SIMPSON (Associated Press)
 1923 ALVA JOHNSTON (New York Times)
 1924 MAGNER WHITE (San Diego Sun)
 1925 JAMES W. MULROY & ALVIN H. GOLDSTEIN (Chicago Daily News)

- 1926 WILLIAM BURKE MILLER (Louisville Courier-Journal)
 1927 JOHN T. ROGERS (St. Louis Post-Dispatch)
 1929 PAUL Y. ANDERSON (St. Louis Post-Dispatch)
 1930 RUSSELL D. OWEN (New York Times); Special award: W. O. DAPPING (Auburn [N. Y.] Citizen)
 1931 A. B. MACDONALD (Kansas City [Mo.] Star)
 1932 W. C. RICHARDS, D. D. MARTIN, J. S. POOLER, F. D. WEBB, J. N. W. SLOAN (all of Detroit Free Press)
 1933 FRANCIS A. JAMIESON (Associated Press)
 1934 ROYCE BRIER (San Francisco Chronicle)
 1935 WILLIAM H. TAYLOR (New York Herald Tribune)
 1936 LAUREN D. LYMAN (New York Times)
 1937 JOHN J. O'NEILL (New York Herald Tribune), WILLIAM LEONARD LAURENCE (New York Times), HOWARD W. BLAKESLEE (Associated Press), GOBIND BEHARI LAL (Universal Service), DAVID DIETZ (Scripps-Howard Newspapers)
 1938 RAYMOND SPRIGLE (Pittsburgh Post-Gazette)
 1939 THOMAS L. STOKES (New York World-Telegram)
 1940 S. BURTON HEATH (New York World-Telegram)
 1941 WESTBROOK PEGLER (New York World-Telegram)
 1942 STANTON DELAPLANE (San Francisco Chronicle)
 1943 GEORGE WELER (Chicago Daily News)
 1944 PAUL SCHOENSTEIN & associates (New York Journal-American)
 1945 JACK S. MCDOWELL (San Francisco Call-Bulletin)
 1946 WILLIAM LEONARD LAURENCE (New York Times)
 1947 FREDERICK WOLTMAN (New York World-Telegram)
 1948 GEORGE E. GOODWIN (Atlanta Journal)
 1949 MALCOLM JOHNSON (New York Sun)
 1950 MEYER BERGER (New York Times)
 1951 EDWARD S. MONTGOMERY (San Francisco Examiner)

- 1952 GEORGE DE CARVALHO (San Francisco Chronicle)
 1953 Editorial staff (Providence Journal & Evening Bulletin);* EDWARD J. MOWERY (New York World-Telegram & Sun)†
 1954 Vicksburg (Miss.) Sunday Post-Herald;* ALVIN SCOTT MCCOY (Kansas City [Mo.] Star)†
 1955 MRS. CARO BROWN (Alice [Tex.] Daily Echo);* ROLAND KENNETH TOWERY (Cuero [Tex.] Record)†
 1956 LEE HILLS (Detroit Free Press);* ARTHUR DALEY (New York Times)†
 1957 Salt Lake Tribune;* WALLACE TURNER and WILLIAM LAMBERT (Portland Oregonian)†
 1958 Fargo [N. Dak.] Forum;* GEORGE BEVERIDGE (Washington Evening Star)†
 1959 MARY LOU WERNER (Washington Evening Star);* JOHN HAROLD BRISLIN (Scranton [Pa.] Tribune & Scrantonian)†

Special Citations

- 1938 Edmonton [Alberta] Journal, special bronze plaque for editorial leadership in defense of freedom of press in Province of Alberta.
 1941 New York Times for the public educational value of its foreign news report.
 1944 BYRON PRICE, Director of the Office of Censorship, for the creation and administration of the newspaper and radio codes. MRS. WILLIAM ALLEN WHITE, for her husband's interest and services during the past seven years as a member of the Advisory Board of the Graduate School of Journalism, Columbia University.
 1945 The cartographers of the American press for their war maps.
 1947 (Pulitzer centennial year.) Columbia University and the Graduate School of Journalism, for their efforts to maintain and advance

* Reporting under pressure of edition deadlines. † Reporting not under pressure of edition deadlines.

the high standards governing the Pulitzer Prize awards. The *St. Louis Post-Dispatch*, for its unswerving adherence to the public and professional ideals of its founder and its leadership in the field of American journalism.

- 1948 DR. FRANK D. FACKENTHAL, for his interest and service.

- 1951 CYRUS L. SULZBERGER (*New York Times*) for his exclusive interview with Archbishop Stepinac in a Yugoslav prison.
 1952 *Kansas City Star* for coverage of 1951 floods; MAX KASE (*New York Journal-American*) for exposures of bribery in college basketball.
 1953 *New York Times* for its 17-year publication of "News of the Week in Review."

- 1958 WALTER LIPPMANN (*New York Herald Tribune*) for his "wisdom, perception and high sense of responsibility" in his commentary on national and international affairs.

History of Services Rendered Public by American Press in Preceding Year

- 1918 MINNA LEWINSON, HENRY B. HOUGH

Pulitzer Prizes in Letters

Novel*

- 1918 *His Family*. By ERNEST POOLE
 1919 *The Magnificent Ambersons*. By BOOTH TARKINGTON
 1921 *The Age of Innocence*. By EDITH WHARTON
 1922 *Alice Adams*. By BOOTH TARKINGTON
 1923 *One of Ours*. By WILLA CATHER
 1924 *The Able McLaughlins*. By MARGARET WILSON
 1925 *So Big*. By EDNA FERBER
 1926 *Arrowsmith*. By SINCLAIR LEWIS
 1927 *Early Autumn*. By LOUIS BROMFIELD
 1928 *The Bridge of San Luis Rey*. By THORNTON WILDER
 1929 *Scarlet Sister Mary*. By JULIA PETERKIN
 1930 *Laughing Boy*. By OLIVER LA FARGE
 1931 *Years of Grace*. By MARGARET AYER BARNES
 1932 *The Good Earth*. By PEARL S. BUCK
 1933 *The Store*. By T. S. STRIBLING
 1934 *Lamb in His Bosom*. By CAROLINE MILLER
 1935 *Now in November*. By JOSEPHINE WINSLOW JOHNSON
 1936 *Honey in the Horn*. By HAROLD L. DAVIS
 1937 *Gone With the Wind*. By MARGARET MITCHELL
 1938 *The Late George Apley*. By JOHN PHILLIPS MARQUAND
 1939 *The Yearling*. By MARJORIE KINNAN RAWLINGS
 1940 *The Grapes of Wrath*. By JOHN STEINBECK
 1942 *In This Our Life*. By ELLEN GLASGOW

- 1943 *Dragon's Teeth*. By UPTON SINCLAIR
 1944 *Journey in the Dark*. By MARTIN FLAVIN
 1945 *A Bell for Adano*. By JOHN HERSEY
 1947 *All the King's Men*. By ROBERT PENN WARREN
 1948 *Tales of the South Pacific*. By JAMES A. MICHENER
 1949 *Guard of Honor*. By JAMES GOULD COZZENS
 1950 *The Way West*. By A. B. GUTHRIE, JR.
 1951 *The Town*. By CONRAD RICHTER
 1952 *The Caine Mutiny*. By HERMAN WOUK
 1953 *The Old Man and the Sea*. By ERNEST HEMINGWAY
 1955 *A Fable*. By WILLIAM FAULKNER
 1956 *Andersonville*. By MAC-KINLAY KANTOR
 1958 *A Death in the Family*. By JAMES AGEE
 1959 *The Travels of Jaimie McPheeters*. By ROBERT LEWIS TAYLOR

Drama

- 1918 *Why Marry?* By JESSE LYNCH WILLIAMS
 1920 *Beyond the Horizon*. By EUGENE O'NEILL
 1921 *Miss Lulu Bett*. By ZONA GALE
 1922 *Anna Christie*. By EUGENE O'NEILL
 1923 *Icebound*. By OWEN DAVIS
 1924 *Hell-Bent Fer Heaven*. By HATCHER HUGHES
 1925 *They Knew What They Wanted*. By SIDNEY HOWARD
 1926 *Craig's Wife*. By GEORGE KELLY
 1927 *In Abraham's Bosom*. By PAUL GREEN

- 1928 *Strange Interlude*. By EUGENE O'NEILL
 1929 *Street Scene*. By ELMER L. RICE
 1930 *The Green Pastures*. By MARC CONNELLY
 1931 *Alison's House*. By SUSAN GLASPELL
 1932 *Of Thee I Sing*. By GEORGE S. KAUFMAN, MORRIS RYSKIND & IRA GERSHWIN
 1933 *Both Your Houses*. By MAXWELL ANDERSON
 1934 *Men in White*. By SIDNEY KINGSLEY
 1935 *The Old Maid*. By Zoé AKINS
 1936 *Idiot's Delight*. By ROBERT E. SHERWOOD
 1937 *You Can't Take It With You*. By MOSS HART and GEORGE S. KAUFMAN
 1938 *Our Town*. By THORNTON WILDER
 1939 *Abe Lincoln in Illinois*. By ROBERT E. SHERWOOD
 1940 *The Time of Your Life*. By WILLIAM SAROYAN
 1941 *There Shall Be No Night*. By ROBERT E. SHERWOOD
 1943 *The Skin of Our Teeth*. By THORNTON WILDER
 1945 *Harvey*. By MARY CHASE
 1946 *State of the Union*. By RUSSEL CROUSE and HOWARD LINDSAY
 1948 *A Streetcar Named Desire*. By TENNESSEE WILLIAMS
 1949 *Death of a Salesman*. By ARTHUR MILLER
 1950 *South Pacific*. By RICHARD RODGERS, OSCAR HAMMERSTEIN 2ND, and JOSHUA LOGAN
 1952 *The Shrike*. By JOSEPH KRAMM
 1953 *Picnic*. By WILLIAM INGE
 1954 *The Teahouse of the August Moon*. By JOHN PATRICK

*Category changed to fiction for 1948 and thereafter.

- 1955 *Cat on a Hot Tin Roof.* By TENNESSEE WILLIAMS
- 1956 *The Diary of Anne Frank.* By FRANCES GOODRICH & ALBERT HACKETT
- 1957 *Long Day's Journey Into Night.* By EUGENE O'NEILL
- 1958 *Look Homeward, Angel.* By KETTI FRINGS
- 1959 *J.B.* By ARCHIBALD MACLEISH
- History**
- 1917 *With Americans of Past and Present Days.* By J. J. JUSSERAND, Amb. of France to U. S.
- 1918 *A History of the Civil War, 1861-1865.* By JAMES FORD RHODES
- 1920 *The War with Mexico.* By JUSTIN H. SMITH
- 1921 *The Victory at Sea.* By WILLIAM SOWDEN SIMS in collaboration with BURTON J. HENDRICK
- 1922 *The Founding of New England.* By JAMES TRUSLOW ADAMS
- 1923 *The Supreme Court in United States History.* By CHARLES WARREN
- 1924 *The American Revolution—A Constitutional Interpretation.* By CHARLES HOWARD MCILWAIN
- 1925 *A History of the American Frontier.* By FREDERIC L. PAXSON
- 1926 *The History of the United States.* By EDWARD CHANNING
- 1927 *Pinckney's Treaty.* By SAMUEL FLAGG BEMIS
- 1928 *Main Currents in American Thought.* By VERNON LOUIS PARRINGTON
- 1929 *The Organization and Administration of the Union Army, 1861-1865.* By FRED ALBERT SHANNON
- 1930 *The War of Independence.* By CLAUDE H. VAN TYNE
- 1931 *The Coming of the War: 1914.* By BERNADOTTE E. SCHMITT
- 1932 *My Experiences in the World War.* By JOHN J. PERSHING
- 1933 *The Significance of Sections in American History.* By FREDERICK J. TURNER
- 1934 *The People's Choice.* By HERBERT AGAR
- 1935 *The Colonial Period of American History.* By CHARLES MCLEAN ANDREWS
- 1936 *The Constitutional History of the United States.* By ANDREW C. McLAUGHLIN
- 1937 *The Flowering of New England.* By VAN WYCK BROOKS
- 1938 *The Road to Reunion, 1865-1900.* By PAUL HERMAN BUCK
- 1939 *A History of American Magazines.* By FRANK LUTHER MOTT
- 1940 *Abraham Lincoln: The War Years.* By CARL SANDBURG
- 1941 *The Atlantic Migration, 1607-1860.* By MARCUS LEE HANSEN
- 1942 *Reveille in Washington.* By MARGARET LEECH
- 1943 *Paul Revere and the World He Lived In.* By ESTHER FORBES
- 1944 *The Growth of American Thought.* By MERLE CURTI
- 1945 *Unfinished Business.* By STEPHEN BONSAI
- 1946 *The Age of Jackson.* By ARTHUR M. SCHLESINGER, JR.
- 1947 *Scientists Against Time.* By JAMES PHINNEY BAXTER, 3RD
- 1948 *Across the Wide Missouri.* By BERNARD DEVOTO
- 1949 *The Disruption of American Democracy.* By ROY FRANKLIN NICHOLS
- 1950 *Art and Life in America.* By OLIVER W. LARKIN
- 1951 *The Old Northwest, Pioneer Period 1815-1840.* By R. CARLYLE BULEY
- 1952 *The Uprooted.* By OSCAR HANDLIN
- 1953 *The Era of Good Feelings.* By GEORGE DANGERFIELD
- 1954 *A Stillness at Appomattox.* By BRUCE CATTION
- 1955 *Great River: The Rio Grande in North American History.* By PAUL HORGAN
- 1956 *The Age of Reform.* By RICHARD HOFSTADTER
- 1957 *Russia Leaves the War: Soviet-American Relations, 1917-1920.* By GEORGE F. KENNAN
- 1958 *Banks and Politics in America: From the Revolution to the Civil War.* By BRAY HAMMOND
- 1959 *The Republican Era: 1869-1901.* By LEONARD D. WHITE, assisted by JEAN SCHNEIDER.
- Biography or Autobiography**
- 1917 *Julia Ward Howe.* By LAURA E. RICHARDS and MAUDE HOWE ELLIOTT assisted by FLORENCE HOWE HALL
- 1918 *Benjamin Franklin, Self-Revealed.* By WILLIAM CABELL BRUCE
- 1919 *The Education of Henry Adams.* By HENRY ADAMS
- 1920 *The Life of John Marshall.* By ALBERT J. BEVERIDGE
- 1921 *The Americanization of Edward Bok.* By EDWARD BOK
- 1922 *A Daughter of the Middle Border.* By HAMLIN GARLAND
- 1923 *The Life and Letters of Walter H. Page.* By BURTON J. HENDRICK
- 1924 *From Immigrant to Inventor.* By MICHAEL IDVORSKY PUPIN
- 1925 *Barrett Wendell and His Letters.* By M. A. DEWOLFE HOWE
- 1926 *The Life of Sir William Osler.* By HARVEY CUSHING
- 1927 *Whitman.* By EMORY HOLLOWAY
- 1928 *The American Orchestra and Theodore Thomas.* By CHARLES EDWARD RUSSELL
- 1929 *The Training of an American. The Earlier Life and Letters of Walter H. Page.* By BURTON J. HENDRICK
- 1930 *The Raven.* By MARQUIS JAMES
- 1931 *Charles W. Eliot.* By HENRY JAMES
- 1932 *Theodore Roosevelt.* By HENRY F. PRINGLE
- 1933 *Grover Cleveland.* By ALLAN NEVINS
- 1934 *John Hay.* By TYLER DENNETT
- 1935 *R. E. Lee.* By DOUGLAS S. FREEMAN
- 1936 *The Thought and Character of William James.* By RALPH BARTON PERRY
- 1937 *Hamilton Fish.* By ALLAN NEVINS
- 1938 *Pedlar's Progress.* By

- ODELL SHEPARD. *Andrew Jackson*. By MARQUIS JAMES
- 1939 Benjamin Franklin. By CARL VAN DOREN
- 1940 Woodrow Wilson. *Life and Letters*, Vols. VII and VIII. By RAY STANNARD BAKER
- 1941 Jonathan Edwards. By OLA ELIZABETH WINSLOW
- 1942 Crusader in Crinoline. By FORREST WILSON
- 1943 Admiral of the Ocean Sea. By SAMUEL ELIOT MORISON
- 1944 The American Leonardo: The Life of Samuel F. B. Morse. By CARLETON MABEE
- 1945 George Bancroft: Brahmin Rebel. By RUSSEL BLAINE NYE
- 1946 Son of the Wilderness. By LINNIE MARSH WOLFE
- 1947 The Autobiography of William Allen White
- 1948 Forgotten First Citizen: John Bigelow. By MARGARET CLAPP
- 1949 Roosevelt and Hopkins. By ROBERT E. SHERWOOD
- 1950 John Quincy Adams and the Foundations of American Foreign Policy. By SAMUEL FLAGG BEMIS
- 1951 John C. Calhoun: American Portrait. By MARGARET LOUISE COIT
- 1952 Charles Evans Hughes. By MERLO J. PUSEY
- 1953 Edmund Pendleton 1721-1803. By DAVID J. MAYS
- 1954 The Spirit of St. Louis. By CHARLES A. LINDHERSH
- 1955 The Taft Story. By WILLIAM S. WHITE
- 1956 Benjamin Henry Latrobe. By TALBOT F. HAMLIN
- 1957 Profiles in Courage. By JOHN F. KENNEDY
- 1958 George Washington. By DOUGLAS SOUTHAL FREEMAN (Vols. 1-6) and JOHN ALEXANDER CARROLL and MARY WELLS ASHWORTH (Vol. 7)
- 1959 Woodrow Wilson, American Prophet. By ARTHUR WALWORTH
- Poetry
- 1918* Love Songs. By SARA TEASDALE
- 1919* Old Road to Paradise. By MARGARET WIDEMER
- Corn Huskers. By CARL SANDBURG
- 1922 Collected Poems. By EDWIN ARLINGTON ROBINSON
- 1923 The Ballad of the Harp-Weaver; A Few Figs from Thistles; eight sonnets in American Poetry, 1922, A Miscellany. By EDNA ST. VINCENT MILLAY
- 1924 New Hampshire: A Poem with Notes and Grace Notes. By ROBERT FROST
- 1925 The Man Who Died Twice. By EDWIN ARLINGTON ROBINSON
- 1926 What's O'Clock. By AMY LOWELL
- 1927 Fiddler's Farewell. By LEONORA SPEYER
- 1928 Tristram. By EDWIN ARLINGTON ROBINSON
- 1929 John Brown's Body. By STEPHEN VINCENT BENÉT
- 1930 Selected Poems. By CONRAD AIKEN
- 1931 Collected Poems. By ROBERT FROST
- 1932 The Flowering Stone. By GEORGE DILLON
- 1933 Conquistador. By ARCHIBALD MACLEISH
- 1934 Collected Verse. By ROBERT HILLYER
- 1935 Bright Ambush. By AUDREY WURDEMANN
- 1936 Strange Holiness. By ROBERT F. T. COFFIN
- 1937 A Further Range. By ROBERT FROST
- 1938 Cold Morning Sky. By MARYA ZATURENSKA
- 1939 Selected Poems. By JOHN GOULD FLETCHER
- 1940 Collected Poems. By MARK VAN DOREN
- 1941 Sunderland Capture. By LEONARD BACON
- 1942 The Dust Which Is God. By WILLIAM ROSE BENÉT
- 1943 A Witness Tree. By ROBERT FROST
- 1944 Western Star. By STEPHEN VINCENT BENÉT
- 1945 V-Letter and Other Poems. By KARL SHAPIRO
- 1947 Lord Weary's Castle. By ROBERT LOWELL
- 1948 The Age of Anxiety. By W. H. AUDEN
- 1949 Terror and Decorum. By PETER VIERECK
- 1950 Annie Allen. By GWENDOLYN BROOKS
- 1951 Complete Poems. By CARL SANDBURG
- 1952 Collected Poems. By MARIANNE MOORE
- 1953 Collected Poems 1917-1952. By ARCHIBALD MACLEISH
- 1954 The Waking. By THEODORE ROETHKE
- 1955 Collected Poems. By WALLACE STEVENS
- 1956 Poems—North & South. By ELIZABETH BISHOP
- 1957 Things of This World. By RICHARD WILBUR
- 1958 Promises: Poems 1954-1956. By ROBERT PENN WARREN
- 1959 Selected Poems, 1928-1958. By STANLEY KUNITZ
- Special Citations
- 1944 Oklahoma! By RICHARD RODGERS and OSCAR HAMMERSTEIN 2ND
- 1957 KENNETH ROBERTS, for his historical novels.

*Awards were made from gifts provided by the Poetry Society.

Pulitzer Prizes in Music

- 1943 Secular Cantata No. 2, A Free Song. By WILLIAM SCHUMAN
- 1944 Symphony No. 4 (Op. 34). By HOWARD HANSON
- 1945 Appalachian Spring. By AARON COPLAND
- 1946 The Canticle of the Sun. By LEO SOWERBY
- 1947 Symphony No. 3. By CHARLES IVES
- 1948 Symphony No. 3. By WALTER PISTON
- 1949 Louisiana Story music. By VIRGIL THOMSON
- 1950 The Consul. By GIAN-CARLO MENOTTI
- 1951 Music for opera Giants in the Earth. By DOUGLAS STUART MOORE
- 1952 Symphony Concertante. By GAIL KUBIK
- 1954 Concerto for Two Pianos and Orchestra. By QUINCY PORTER
- 1955 The Saint of Bleecker Street. By GIAN-CARLO MENOTTI
- 1956 Symphony No. 3. By ERNST TOCH
- 1957 Meditations on Ecclesiastes. By NORMAN DELLO JOIO
- 1958 Vanessa. By SAMUEL BARBER
- 1959 Concerto for Piano & Orchestra. By JOHN LA MONTAINE

Overseas Press Club of America Awards for 1958

- Class 1—Best press reporting, daily or wire, from abroad: Bob Considine, the Hearst Newspapers.
- Class 2—Best radio or television reporting from abroad: Winston Burdett, CBS.
- Class 3—Best photographic reporting (still) from abroad: Andrew St. George, free-lance photographer.
- Class 4—Best photographic reporting (motion pictures) from abroad: Joseph Oexle, NBC.
- Class 5—Best magazine reporting of foreign affairs: Joseph Kraft, *Saturday Evening Post*.
- Class 6—Best American press interpretation of

foreign affairs: Graham Hovey, *Minneapolis Star and Tribune*.

Class 7—Best American radio or television interpretation of foreign affairs: Chet Huntley, NBC.

Class 8—Best book on foreign affairs: John Gunther, for *Inside Russia Today*.

Class 9—Robert Capa Award for superlative photography requiring exceptional courage and enterprise abroad: Paul Bruck, CBS.

Class 10—George Polk Memorial Award for best reporting requiring exceptional courage and enterprise abroad: Joseph Taylor, UPI.

List of Motion Picture Academy Awards

PRODUCTION

- 1928 *Wings*, Paramount
- 1929 *The Broadway Melody*, M-G-M
- 1930 *All Quiet on the Western Front*, Universal
- 1931 *Cimarron*, RKO Radio
- 1932 *Grand Hotel*, M-G-M
- 1933 *Cavalcade*, Fox
- 1934 *It Happened One Night*, Columbia
- 1935 *Mutiny on the Bounty*, M-G-M
- 1936 *The Great Ziegfeld*, M-G-M
- 1937 *The Life of Emile Zola*, Warner
- 1938 *You Can't Take It With You*, Columbia
- 1939 *Gone With the Wind*, Selznick-M-G-M
- 1940 *Rebecca*, Selznick-UA
- 1941 *How Green Was My Valley*, 20th Century-Fox
- 1942 *Mrs. Miniver*, M-G-M
- 1943 *Casablanca*, Warner Bros.
- 1944 *Going My Way*, Paramount
- 1945 *The Lost Weekend*, Paramount
- 1946 *The Best Years of Our Lives*, Goldwyn-RKO Radio
- 1947 *Gentleman's Agreement*, 20th Century-Fox
- 1948 *Hamlet*, Rank-Two Cities-U-I
- 1949 *All the King's Men*, Rossen-Columbia
- 1950 *All About Eve*, 20th Century-Fox
- 1951 *An American in Paris*, M-G-M
- 1952 *The Greatest Show on Earth*, Paramount
- 1953 *From Here to Eternity*, Columbia
- 1954 *On the Waterfront*, Columbia
- 1955 *Marty*, United Artists
- 1956 *Around the World in 80 Days*, the Michael Todd Co., Inc.-UA
- 1957 *The Bridge on the River Kwai*, Columbia
- 1958 *Gigi*, M-G-M

ACTRESS AND MOVIE

- 1928 Janet Gaynor, *Seventh Heaven*, *Street Angel*, Sunrise
- 1929 Mary Pickford, *Coquette*
- 1930 Norma Shearer, *The Divorcee*
- 1931 Marie Dressler, *Min and Bill*
- 1932 Helen Hayes, *The Sin of Madelon Claudet*

DIRECTOR AND MOVIE

- Frank Borzage, *Seventh Heaven*;
Lewis Milestone, *Two Arabian Nights*
Frank Lloyd, *The Divine Lady*
Lewis Milestone, *All Quiet on the Western Front*
Norman Taurog, *Skippy*
Frank Borzage, *Bad Girl*
Frank Lloyd, *Cavalcade*
Frank Capra, *It Happened One Night*
John Ford, *The Informer*
Frank Capra, *Mr. Deeds Goes to Town*
Leo McCarey, *The Awful Truth*
Frank Capra, *You Can't Take It With You*
Victor Fleming, *Gone With the Wind*
John Ford, *The Grapes of Wrath*
John Ford, *How Green Was My Valley*
William Wyler, *Mrs. Miniver*
Michael Curtiz, *Casablanca*
Leo McCarey, *Going My Way*
Billy Wilder, *The Lost Weekend*
William Wyler, *The Best Years of Our Lives*
Elia Kazan, *Gentleman's Agreement*
John Huston, *Treasure of Sierra Madre*
Joseph L. Mankiewicz, *A Letter to Three Wives*
Joseph L. Mankiewicz, *All About Eve*
George Stevens, *A Place in the Sun*
John Ford, *The Quiet Man*
Fred Zinnemann, *From Here to Eternity*
Elia Kazan, *On the Waterfront*
Delbert Mann, *Marty*
George Stevens, *Giant*
David Lean, *The Bridge on the River Kwai*
Vincente Minnelli, *Gigi*

ACTOR AND MOVIE

- Emil Jannings, *The Way of All Flesh*, *The Last Command*
Warner Baxter, *In Old Arizona*
George Arliss, *Disraeli*
Lionel Barrymore, *A Free Soul*
Fredric March, *Dr. Jekyll and Mr. Hyde*, and
Wallace Beery, *The Champ*

- 1933 Katharine Hepburn, *Morning Glory*
 1934 Claudette Colbert, *It Happened One Night*
 1935 Bette Davis, *Dangerous*
 1936 Luise Rainer, *The Great Ziegfeld*
 1937 Luise Rainer, *The Good Earth*
 1938 Bette Davis, *Jezebel*
 1939 Vivien Leigh, *Gone With the Wind*
 1940 Ginger Rogers, *Kitty Foyle*
 1941 Joan Fontaine, *Suspicion*
 1942 Greer Garson, *Mrs. Miniver*
 1943 Jennifer Jones, *The Song of Bernadette*
 1944 Ingrid Bergman, *Gaslight*
 1945 Joan Crawford, *Mildred Pierce*
 1946 Olivia de Havilland, *To Each His Own*
 1947 Loretta Young, *Farmer's Daughter*
 1948 Jane Wyman, *Johnny Belinda*
 1949 Olivia de Havilland, *The Heiress*
 1950 Judy Holliday, *Born Yesterday*
 1951 Vivien Leigh, *A Streetcar Named Desire*
 1952 Shirley Booth, *Come Back, Little Sheba*
 1953 Audrey Hepburn, *Roman Holiday*
 1954 Grace Kelly, *Country Girl*
 1955 Anna Magnani, *The Rose Tattoo*
 1956 Ingrid Bergman, *Anastasia*
 1957 Joanne Woodward, *The Three Faces of Eve*
 1958 Susan Hayward, *I Want to Live!*
- ACTRESS (SUPPORTING ROLE)**
 1936 Gale Sondergaard, *Anthony Adverse*
 1937 Alice Brady, *In Old Chicago*
 1938 Fay Bainter, *Jezebel*
 1939 Hattie McDaniel, *Gone With the Wind*
 1940 Jane Darwell, *The Grapes of Wrath*
 1941 Mary Astor, *The Great Lie*
 1942 Teresa Wright, *Mrs. Miniver*
 1943 Katina Paxinou, *For Whom the Bell Tolls*
 1944 Ethel Barrymore, *None But the Lonely Heart*
 1945 Anne Revere, *National Velvet*
 1946 Anne Baxter, *The Razor's Edge*
 1947 Celeste Holm, *Gentleman's Agreement*
 1948 Claire Trevor, *Key Largo*
 1949 Mercedes McCambridge, *All the King's Men*
 1950 Josephine Hull, *Harvey*
 1951 Kim Hunter, *A Streetcar Named Desire*
 1952 Gloria Grahame, *The Bad and the Beautiful*
 1953 Donna Reed, *From Here to Eternity*
 1954 Eva Marie Saint, *On the Waterfront*
 1955 Jo Van Fleet, *East of Eden*
 1956 Dorothy Malone, *Written on the Wind*
 1957 Miyoshi Umeki, *Sayonara*
 1958 Wendy Hiller, *Separate Tables*
- Charles Laughton, *The Private Life of Henry VIII*
 Clark Gable, *It Happened One Night*
 Victor McLaglen, *The Informer*
 Paul Muni, *The Story of Louis Pasteur*
 Spencer Tracy, *Captains Courageous*
 Spencer Tracy, *Boys Town*
 Robert Donat, *Goodbye, Mr. Chips*
 James Stewart, *The Philadelphia Story*
 Gary Cooper, *Sergeant York*
 James Cagney, *Yankee Doodle Dandy*
 Paul Lukas, *Watch on the Rhine*
 Bing Crosby, *Going My Way*
 Ray Milland, *The Lost Weekend*
 Fredric March, *The Best Years of Our Lives*
 Ronald Colman, *A Double Life*
 Sir Laurence Olivier, *Hamlet*
 Broderick Crawford, *All the King's Men*
 Jose Ferrer, *Cyrano de Bergerac*
 Humphrey Bogart, *The African Queen*
 Gary Cooper, *High Noon*
 William Holden, *Stalag 17*
 Marlon Brando, *On the Waterfront*
 Ernest Borgnine, *Marty*
 Yul Brynner, *The King and I*
 Alec Guinness, *The Bridge on the River Kwai*
 David Niven, *Separate Tables*
- ACTOR (SUPPORTING ROLE)**
 Walter Brennan, *Come and Get It*
 Joseph Schildkraut, *The Life of Emile Zola*
 Walter Brennan, *Kentucky*
 Thomas Mitchell, *Stagecoach*
 Walter Brennan, *The Westerner*
 Donald Crisp, *How Green Was My Valley*
 Van Heflin, *Johnny Eager*
 Charles Coburn, *The More the Merrier*
 Barry Fitzgerald, *Going My Way*
 James Dunn, *A Tree Grows in Brooklyn*
 Harold Russell, *The Best Years of Our Lives*
 Edmund Gwenn, *Miracle on 34th Street*
 Walter Huston, *The Treasure of Sierra Madre*
 Dean Jagger, *Twelve O'Clock High*
 George Sanders, *All About Eve*
 Karl Malden, *A Streetcar Named Desire*
 Anthony Quinn, *Viva Zapata!*
 Frank Sinatra, *From Here to Eternity*
 Edmond O'Brien, *The Barefoot Contessa*
 Jack Lemmon, *Mister Roberts*
 Anthony Quinn, *Lust for Life*
 Red Buttons, *Sayonara*
 Burl Ives, *The Big Country*

Some Other Academy Awards for 1958

Art direction: *Gigi*. Art direction: William A. Horning and Preston Ames. Set decoration: Henry Grace and Keogh Gleason.
 Cinematography (black-and-white): Sam Leavitt, *The Defiant Ones*.

Cinematography (color): Joseph Ruttenberg, *Gigi*.
 Costume design: Cecil Beaton, *Gigi*.
 Documentary (feature): *White Wilderness*, Walt Disney Productions.

Documentary (short subject): *Ama Girls*, Walt Disney Productions.
 Film editing: Adrienne Fazan, *Gigi*.
 Foreign-language film: *My Uncle* (French).
 Honorary award: Maurice Chevalier.
 Music (scoring musical picture): Andre Previn, *Gigi*.
 Music (score of dramatic or comedy picture): Dimitri Tiomkin, *The Old Man and the Sea*.
 Music (song): "Gigi" from *Gigi*. Music by Frederick Loewe, lyrics by Alan Jay Lerner.

Short subjects (cartoon): *Knighty Knight Bugs*, Warner Bros.
 Short subjects (live action): *Grand Canyon*, Walt Disney Productions.
 Sound: *South Pacific*, Todd-AO Sound Department.
 Special effects: Tom Howard, *tom thumb*.
 Writing (screenplay based on material from another medium): Alan Jay Lerner, *Gigi*.
 Writing (story and screenplay written directly for the screen): Nathan E. Douglas and Harold Jacob Smith, *The Defiant Ones*.

New York Film Critics' Awards

(1—best motion picture; 2—best male performance; 3—best feminine performance; 4—best direction; 5—best foreign film; 6—special award.)

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|---|---|---|
| 1940 1. <i>The Grapes of Wrath</i> , 20th Century-Fox | 3. Ingrid Bergman, <i>Spell-bound and The Bells of St. Mary's</i> | 1950 1. <i>All About Eve</i> , 20th Century-Fox |
| 2. Charles Chaplin, <i>The Great Dictator</i> (refused award) | 4. Billy Wilder, <i>The Lost Weekend</i> | 2. Gregory Peck, <i>Twelve O'Clock High</i> |
| 3. Katharine Hepburn, <i>The Philadelphia Story</i> | 5. (None) | 3. Bette Davis, <i>All About Eve</i> |
| 4. John Ford, <i>The Grapes of Wrath</i> | 6. <i>The True Glory and The Fighting Lady</i> | 4. Joseph L. Mankiewicz, <i>All About Eve</i> |
| 5. <i>The Baker's Wife</i> (French) | 1946 1. <i>The Best Years of Our Lives</i> , Goldwyn-RKO Radio | 5. <i>Ways of Love</i> (Franco-Italian) |
| 1941 1. <i>Citizen Kane</i> , RKO-Mercury | 2. Laurence Olivier, <i>Henry V</i> | 1951 1. <i>A Streetcar Named Desire</i> , Warner Bros. |
| 2. Gary Cooper, <i>Sergeant York</i> | 3. Celia Johnson, <i>Brief Encounter</i> | 2. Arthur Kennedy, <i>Bright Victory</i> |
| 3. Joan Fontaine, <i>Suspicion</i> | 4. William Wyler, <i>The Best Years of Our Lives</i> | 3. Vivien Leigh, <i>A Streetcar Named Desire</i> |
| 4. John Ford, <i>How Green Was My Valley</i> | 5. <i>Open City</i> (Italian) | 4. Ella Kazan, <i>A Streetcar Named Desire</i> |
| 1942 1. <i>In Which We Serve</i> , UA-Noel Coward | 1947 1. <i>Gentleman's Agreement</i> , 20th Century-Fox | 5. <i>Miracle in Milan</i> (Italian) |
| 2. James Cagney, <i>Yankee Doodle Dandy</i> | 2. William Powell, <i>Life With Father</i> | 1952 1. <i>High Noon</i> , United Artists |
| 3. Agnes Moorehead, <i>The Magnificent Ambersons</i> | 3. Deborah Kerr, <i>The Adventuress and Black Narcissus</i> | 2. Ralph Richardson, <i>Breaking the Sound Barrier</i> |
| 4. John Farrow, <i>Wake Island</i> | 4. Ella Kazan, <i>Gentleman's Agreement and Boomerang</i> | 3. Shirley Booth, <i>Come Back, Little Sheba</i> |
| 1943 1. <i>Watch on the Rhine</i> , Warner Bros. | 5. <i>To Live in Peace</i> (Italian) | 4. Fred Zinnemann, <i>High Noon</i> |
| 2. Paul Lukas, <i>Watch on the Rhine</i> | 1948 1. <i>Treasure of Sierra Madre</i> , Warner Bros. | 5. <i>Forbidden Games</i> (French) |
| 3. Ida Lupino, <i>The Hard Way</i> | 2. Sir Laurence Olivier, <i>Hamlet</i> | 1953 1. <i>From Here to Eternity</i> , Columbia |
| 4. George Stevens, <i>The More the Merrier</i> | 3. Olivia de Havilland, <i>The Snake Pit</i> | 2. Burt Lancaster, <i>From Here to Eternity</i> |
| 1944 1. <i>Going My Way</i> , Paramount | 4. John Huston, <i>Treasure of Sierra Madre</i> | 3. Audrey Hepburn, <i>Roman Holiday</i> |
| 2. Barry Fitzgerald, <i>Going My Way</i> | 5. <i>Paisan</i> (Italian) | 4. Fred Zinnemann, <i>From Here to Eternity</i> |
| 3. Tallulah Bankhead, <i>Lifeboat</i> | 1949 1. <i>All the King's Men</i> , Rossen-Columbia | 5. <i>Justice Is Done</i> (French) |
| 4. Lee McCarey, <i>Going My Way</i> | 2. Broderick Crawford, <i>All the King's Men</i> | 6. <i>A Queen Is Crowned</i> (JARO) and <i>The Conquest of Everest</i> (JARO) |
| 1945 1. <i>The Lost Weekend</i> , Paramount | 3. Olivia de Havilland, <i>The Heiress</i> | 1954 1. <i>On the Waterfront</i> , Columbia |
| 2. Ray Milland, <i>The Lost Weekend</i> | 4. Carol Reed, <i>The Fallen Idol</i> | 2. Marlon Brando, <i>On the Waterfront</i> |
| | 5. <i>The Bicycle Thief</i> (Italian) | 3. Grace Kelly, <i>The Country Girl</i> , Rear |

- Window, *Dial M for Murder*
4. Elia Kazan, *On the Waterfront*
5. Gate of Hell (Japanese)
- 1955 1. Marty, United Artists
2. Ernest Borgnine, *Marty*
3. Anna Magnani, *The Rose Tattoo*
4. David Lean, *Summer-time*
5. *Diabolique* (French) and *Umberto D.* (Italian)
- 1956 1. *Around the World in 80 Days.* The Michael Todd Co., Inc., UA
2. Kirk Douglas, *Lust For Life*
3. Ingrid Bergman, *Anastasia*
4. John Huston, *Moby Dick*
5. *La Strada* (Italian)
- 1957 1. *The Bridge on the River Kwai*, Columbia
2. Alec Guinness, *The Bridge on the River Kwai*
- 1958 1. *The Defiant Ones*, United Artists
2. David Niven, *Separate Tables*
3. Susan Hayward, *I Want to Live!*
4. Stanley Kramer, *The Defiant Ones*
5. *Mon Oncle* (French)

New York Drama Critics' Circle Awards

- 1935-36 *Winterset*, by Maxwell Anderson
- 1936-37 *High Tor*, by Maxwell Anderson
- 1937-38 *Of Mice and Men*, by John Steinbeck
Shadow and Substance, by Paul Vincent Carroll¹
- 1938-39 (No award)
The White Steed, by Paul Vincent Carroll¹
- 1939-40 *The Time of Your Life*, by William Saroyan
- 1940-41 *Watch on the Rhine*, by Lillian Hellman
The Corn Is Green, by Emlyn Williams¹
- 1941-42 (No award)
Blithe Spirit, by Noel Coward¹
- 1942-43 *The Patriots*, by Sidney Kingsley
- 1943-44 (No award)
Jacobowsky and the Colonel, by Franz Werfel-S. N. Behrman¹
- 1944-45 *The Glass Menagerie*, by Tennessee Williams
- 1945-46 (No award)
Carousel, by Richard Rodgers & Oscar Hammerstein II²
- 1946-47 *All My Sons*, by Arthur Miller
No Exit, by Jean-Paul Sartre¹
Brigadoon, by Lerner and Loewe²
- 1947-48 *A Streetcar Named Desire*, by Tennessee Williams
The Winslow Boy, by Terence Rattigan¹
- 1948-49 *Death of a Salesman*, by Arthur Miller
The Madwoman of Chaillot, by Jean Giraudoux - Maurice Valency¹
South Pacific, by Richard Rodgers, Oscar Hammerstein II & Joshua Logan²
- 1949-50 *The Member of the Wedding*, by Carson McCullers
The Cocktail Party, by T. S. Eliot¹
The Consul, by Gian-Carlo Menotti²
- 1950-51 *Darkness at Noon*, by Sidney Kingsley³
The Lady's Not for Burning, by Christopher Fry¹
Guys and Dolls, by Abe Burrows, Jo Swerling & Frank Loesser²
- 1951-52 *I Am a Camera*, by John Van Druten⁴
Venus Observed, by Christopher Fry¹
Pal Joey, by Richard Rodgers, Lorenz Hart & John O'Hara²
Don Juan in Hell, by George B. Shaw⁵
- 1952-53 *Picnic*, by William Inge
The Love of Four Colonels, by Peter Ustinov¹
Wonderful Town, by Joseph Fields, Jerome Chodorov, Betty Comden, Adolph Green & Leonard Bernstein²
- 1953-54 *The Teahouse of the August Moon*, by John Patrick
Ondine, by Jean Giraudoux¹
- 1954-55 *The Golden Apple*, by John Latouche & Jerome Moross²
Cat on a Hot Tin Roof, by Tennessee Williams
Witness for the Prosecution, by Agatha Christie¹
The Saint of Bleecker Street, by Gian-Carlo Menotti²
- 1955-56 *The Diary of Anne Frank*, by Frances Goodrich & Albert Hackett
Tiger at the Gates, by Jean Giraudoux-Christopher Fry¹
My Fair Lady, by Frederick Loewe & Alan Jay Lerner²
- 1956-57 *Long Day's Journey Into Night*, by Eugene O'Neill
Waltz of the Toreadors, by Jean Anouilh¹
The Most Happy Fella, by Frank Loesser^{2, 6}
- 1957-58 *Look Homeward, Angel*, by Ketti Frings⁷
Look Back in Anger, by John Osborne¹
The Music Man, by Meredith Willson²
- 1958-59 *A Raisin in the Sun*, by Lorraine Hansberry
The Visit, by Friedrich Duerrenmatt-Maurice Valency¹
La Plume de ma Tante, by Robert Dhery & Gerard Calvi²

¹ Citation for best foreign play. ² Citation for best musical. ³ Based on a novel by Arthur Koestler. ⁴ Based on Christopher Isherwood's *Berlin Stories*. ⁵ For "distinguished and original contribution to the theater." ⁶ Based on Sidney Howard's *They Knew What They Wanted*. ⁷ Based on a novel by Thomas Wolfe.

The Hall of Fame for Great Americans

The Hall of Fame for Great Americans, established in 1900 on the campus of New York University, is an open-air colonnade with busts and tablets for 85 of the 86 persons so far honored for national achievements. New names are voted on every five years by a College of Electors of about 100 eminent men and women from all the states. To be elected to the Hall of Fame, an individual must have been dead more than 25 years (before 1922, the stipulation was 10 years), must have been a citizen of the U. S., and must receive a majority vote. Nominations may be made by any citizen. The next election will be held in 1960. Nominations are open from Apr. 1, 1959, to Apr. 1, 1960.

Names	Elected	Names	Elected
John Adams (statesman)	1900	James Kent (jurist)	1900
John Quincy Adams (statesman)	1905	Sidney Lanier (poet)	1945
Louis Agassiz (naturalist)	1915	Robert E. Lee (military officer)	1900
Susan B. Anthony (reformer)	1950	Abraham Lincoln (statesman)	1900
John James Audubon (naturalist)	1900	Henry W. Longfellow (poet)	1900
George Bancroft (historian)	1910	James Russell Lowell (poet)	1905
Henry Ward Beecher (clergyman)	1900	Mary Lyon (educator)	1905
Alexander Graham Bell (inventor)	1950	James Madison (statesman)	1905
Daniel Boone (explorer)	1915	Horace Mann (educator)	1900
Edwin Booth (actor)	1925	John Marshall (jurist)	1900
Phillips Brooks (clergyman)	1910	Matthew F. Maury (oceanographer)	1930
William Cullen Bryant (poet)	1910	Maria Mitchell (astronomer)	1905
William Ellery Channing (clergyman)	1900	James Monroe (statesman)	1930
Rufus Choate (lawyer)	1915	Samuel F. B. Morse (inventor)	1900
Henry Clay (statesman)	1900	William T. G. Morton (dentist)	1920
Samuel L. Clemens (author)	1920	John Lothrop Motley (historian)	1910
Grover Cleveland (statesman)	1935	Simon Newcomb (astronomer)	1935
James Fenimore Cooper (author)	1910	Thomas Paine (author)	1945
Peter Cooper (philanthropist)	1900	Alice Freeman Palmer (educator)	1920
Charlotte S. Cushman (actress)	1915	Francis Parkman (historian)	1915
James Buchanan Eads (engineer)	1920	George Peabody (philanthropist)	1900
Jonathan Edwards (clergyman)	1900	William Penn (colonizer)	1935
Ralph Waldo Emerson (author)	1900	Edgar Allan Poe (author)	1910
David G. Farragut (naval officer)	1900	Walter Reed (surgeon)	1945
Stephen C. Foster (song composer)	1940	Theodore Roosevelt (statesman)	1950
Benjamin Franklin (statesman)	1900	Augustus Saint-Gaudens (sculptor)	1920
Robert Fulton (inventor)	1900	William T. Sherman (army officer)	1905
Josiah Willard Gibbs (physicist)	1950	Joseph Story (jurist)	1900
William Crawford Gorgas (physician)	1950	Harriet Beecher Stowe (author)	1910
Ulysses S. Grant (statesman)	1900	Gilbert Charles Stuart (painter)	1900
Asa Gray (botanist)	1900	Booker T. Washington (educator)	1945
Alexander Hamilton (statesman)	1915	George Washington (statesman)	1900
Nathaniel Hawthorne (author)	1900	Daniel Webster (statesman)	1900
Joseph Henry (physicist)	1915	George Westinghouse (inventor)	1955
Patrick Henry (statesman)	1920	J. A. McNeill Whistler (painter)	1930
Oliver Wendell Holmes (author)	1910	Walt Whitman (poet)	1930
Mark Hopkins (educator)	1915	Eli Whitney (inventor)	1900
Elias Howe (inventor)	1915	John Greenleaf Whittier (poet)	1905
Washington Irving (author)	1900	Emma Willard (educator)	1905
Andrew Jackson (statesman)	1910	Frances Elizabeth Willard (reformer)	1910
Thomas ("Stonewall") Jackson		Roger Williams (clergyman)	1920
(military officer)	1955	Woodrow Wilson (statesman)	1950
Thomas Jefferson (statesman)	1900	Wilbur Wright* (inventor)	1955
John Paul Jones (naval officer)	1925		

* Not yet represented by a bust and tablet.

Portraits and Designs of U. S. Paper Currency

Currency	Portrait	Design on back	Currency	Portrait	Design on back
\$1	Washington	ONE between obverse and reverse of Great Seal of U. S.	\$100	Franklin	Independence Hall.
\$2	Jefferson	Monticello.	\$500	McKinley	Ornate FIVE HUNDRED across.
\$5	Lincoln	Lincoln Memorial.	\$1,000	Cleveland	Ornate ONE THOUSAND across.
\$10	Hamilton	U. S. Treasury Building.	\$5,000	Madison	Ornate FIVE THOUSAND across.
\$20	Jackson	White House.	\$10,000	Chase	Ornate TEN THOUSAND across.
\$50	Grant	U. S. Capitol.	\$100,000*	Wilson	100,000 superimposed over dollar sign.

* For use only in transactions between Federal Reserve System and Treasury Department.

Plurality and Majority

In order to win a plurality, a candidate must receive a greater number of votes than anyone running against him. If he receives 50 votes, for example, and two other candidates receive 49 and 2, he will have a plurality of one vote over his closest opponent.

However, a candidate does not have a majority unless he receives more than 50% of the total votes cast. In the example above, the candidate does not have a majority, because his 50 votes are less than 50% of the 101 votes cast.

AVIATION



Famous Firsts in Aviation

- 1782—First balloon flight. Jacques and Joseph Montgolfier of Annonay, Fr., sent up a small smoke-filled balloon about mid-November.
- 1783—First hydrogen-filled balloon flight. Jacques A. C. Charles, Paris physicist, supervised construction by A. J. and M. N. Robert of a 13-ft. diameter balloon which was filled with hydrogen. It got up to about 3,000 ft. and traveled about 18 mi. in a 45-min. flight (Aug. 27).
- 1783—First human balloon flights. A Frenchman, Jean Pilâtre de Rozier, made the first captive balloon ascension (Oct. 15). With the Marquis d'Arlandes, Pilâtre de Rozier made the first free flight, reaching a peak altitude of about 500 ft., and traveling about $5\frac{1}{2}$ mi. in 20 min. (Nov. 21).
- 1784—First powered balloon. Gen. Jean Baptiste Marie Meusnier developed the first propeller-driven and elliptically-shaped balloon—the crew cranking three propellers on a common shaft to give the craft a speed of about 3 mi. per hr.
- 1784—First woman to fly. Mme. Thible, a French opera singer (June 4).
- 1793—First balloon flight in America. Jean Pierre Blanchard, a French pilot, made it from Philadelphia to near Woodbury, Gloucester Co., N. J., in a little over 45 min. (Jan. 9).
- 1794—First military use of the balloon. Jean Marie Coutelle, using a balloon built for the French Army, made two 4 hr. observation ascents. The military value of the ascents seems to have been in damage to the enemy's morale.
- 1797—First parachute jump. André-Jacques Garnerin dropped from about 6,500 ft. over Monceau Park in Paris in a 23-ft. diameter 'chute made of white canvas with a basket attached (Oct. 22).
- 1843—First air transport company. In London, William S. Henson and John Stringfellow filed articles of incorporation for the Aerial Transit Company (Mar. 24). It failed.
- 1852—First dirigible. Henri Giffard, a French engineer, flew in a controllable (more or less) steam engine-powered balloon, 144 ft. long and 39 ft. in diameter, inflated with 88,000 cu. ft. of coal gas. It reached 6.7 mi. per hr. on a flight from Paris to Trappe (Sept. 24).
- 1860—First aerial photographers. Samuel Archer King and William Black made two photos of Boston, still in existence.
- 1872—First gas-engine powered dirigible. Paul Haeublein, a German engineer, flew in a semi-rigid frame dirigible, powered by a 4-cylinder internal combustion engine running on coal gas drawn from the supporting bag.
- 1873—First transatlantic attempt. *The New York Daily Graphic* sponsored the attempt with a 400,000 cu. ft. balloon carrying a lifeboat. A rip in the bag during inflation brought collapse of the balloon and the project.
- 1897—First successful metal dirigible. An all-metal dirigible, designed by David Schwarz, a Hungarian, took off from Berlin's Tempelhof Field and, powered by a 16-hp. Daimler engine, got several miles before leaking gas caused it to crash (Nov. 13).
- 1900—First Zeppelin flight. Germany's Count Ferdinand von Zeppelin flew the first of his long series of rigid-frame airships. It attained a speed of 18 mi. per hr. and got $3\frac{1}{2}$ mi. before its steering gear failed (July 2).
- 1903—First successful heavier-than-air machine flight. Aviation was really born on the sand dunes at Kitty Hawk, N. C., when Orville Wright crawled to his prone position between the wings of the biplane he and his brother Wilbur had built, opened the throttle of their home-made 12-hp. engine and took to the air. He covered 120 ft. in 12 sec. Later that day, in one of four flights, Wilbur stayed up 59 sec. and covered 852 ft. (Dec. 17).
- 1904—First airplane maneuvers. Orville Wright made the first turn with an airplane (Sept. 15); 5 days later his brother Wilbur made the first complete circle.
- 1905—First airplane flight over half an hour. Orville Wright kept his craft up 33 min. 17 sec. (Oct. 4).
- 1906—First European airplane flight. Alberto Santos-Dumont, a Brazilian, flew a heavier-than-air machine at Bagatelle Field, Paris (Sept. 13).
- 1908—First airplane fatality. Lt. Thomas E. Selfridge, U. S. Army Signal Corps, was in a group of officers evaluating the Wright plane at Fort Myer, Va. He was up about 75 ft. with Orville Wright when the propeller hit a bracing wire and was broken, throwing the plane out of control, killing Selfridge and seriously injuring Wright (Sept. 17).
- 1910—First licensed woman pilot. Baroness Raymonde de la Roche of France, who

- learned to fly in 1909, received ticket No. 36 on March 8.
- 1910—First flight from shipboard. Lt. Eugene Ely, USN, took a Curtiss plane off from the deck of cruiser *Birmingham* at Hampton Roads, Va., and flew to Norfolk (Nov. 14). The following January he reversed the process, flying from Camp Seaside to the deck of the battleship *Pennsylvania* in San Francisco Bay (Jan. 18).
- 1911—First U. S. woman pilot. Harriet Quimby, a magazine writer, who got ticket No. 37.
- 1913—First multi-engined aircraft. Built and flown by Igor Ivan Sikorsky while still in his native Russia.
- 1914—First aerial combat. In August, Allied and German pilots and observers started shooting at each other with pistols and rifles—with negligible results.
- 1915—First air raids on England. German Zeppelins started dropping bombs on four English communities (Jan. 19).
- 1918—First U. S. air squadron. The U. S. Army Air Corps made its first independent raids over enemy lines, in DH-4 planes (British-designed) powered with 400-hp. American-designed Liberty engines (Apr. 8).
- 1918—First regular airmail service. Operated for the Post Office Department by the Army, the first regular service was inaugurated with one round trip a day (except Sunday) between Washington, D. C., and New York City (May 15).
- 1919—First transatlantic flight. The NC-4, one of four Curtiss flying boats commanded by Lt. Comdr. Albert C. Read, reached Lisbon, Port. (May 27) after hops from Trepassy Bay, Nfld. to Horta, Azores (May 16-17), to Ponta Delgada (May 20). The Liberty-powered craft was piloted by Walter Hinton.
- 1919—First nonstop transatlantic flight. Capt. John Alcock and Lt. Arthur Whitten Brown, British World War I flyers, made the 1,900 mi. from St. John's, Nfld. to Clifden, Ire., in 16 hr. 12 min. in a Vickers-Vimy bomber with two 350-hp. Rolls-Royce engines (June 15-16).
- 1919—First lighter-than-air transatlantic flight. The British dirigible R-34, commanded by Maj. George H. Scott, left Firth of Forth, Scot. (July 2) and touched down at Mineola, L. I., 108 hr. later. The eastbound trip was made in 75 hr. (completed July 13).
- 1919—First scheduled passenger service (using airplanes). Aircraft Travel and Transport inaugurated London-Paris service (Aug. 25). Later the company started the first trans-channel mail service on the same route (Nov. 10).
- 1921—First naval vessel sunk by aircraft. Two battleships being scrapped by treaty were sunk by bombs dropped from Army planes in demonstration put on by Brig. Gen. William S. Mitchell (July 21).
- 1921—First helium balloon. The C-7, non-rigid Navy dirigible was first to use non-inflammable helium as lifting gas, making a flight from Hampton Roads, Va., to Washington, D. C. (Dec. 1).
- 1922—First member of Caterpillar Club. Lt. (later Maj. Gen.) Harold Harris baled out of a crippled plane he was testing at McCook Field, Dayton, Ohio (Oct. 20), and became the first man to join the Caterpillar Club—those whose lives have been saved by parachute.
- 1923—First nonstop transcontinental flight. Lts. John A. Macready and Oakley Kelly flew a single-engine Fokker T-2 nonstop from New York to San Diego, a distance of just over 2,500 mi. in 26 hr. 50 min. (May 2-3).
- 1923—First autogyro flights. Juan de la Cierva, brilliant Spanish mathematician, made the first successful flight in a rotary wing aircraft in Madrid (June 9).
- 1924—First round-the-world flight. Four Douglas Cruiser biplanes of the U. S. Army Air Corps took off from Seattle under command of Maj. Frederick Martin (Apr. 6). 175 days later two of the planes (Lt. Lowell Smith's and Lt. Erik Nelson's) landed in Seattle after a circuitous route—one source saying 26,345 mi., another saying 27,553 mi.
- 1926—First polar flight. Then-Lt. Cmdr. Richard E. Byrd, acting as navigator, and Floyd Bennett as pilot, flew a trimotor Fokker from Kings Bay, Spitsbergen, over the North Pole and back in 15½-hr. flight (May 8-9).
- 1927—First solo transatlantic flight. Charles Augustus Lindbergh lifted his Wright-powered Ryan monoplane, *Spirit of St. Louis*, from Roosevelt Field, L. I., to stay aloft 33 hr. 39 min. and cover 3,600 mi. to Le Bourget Field outside Paris (May 20-21).
- 1927—First transatlantic passenger. Charles A. Levine was piloted by Clarence D. Chamberlin from Roosevelt Field, L. I., to Elsieben, Ger., in a Wright-powered Bellanca (June 4-5).
- 1928—First east-west transatlantic crossing. Baron Guenther von Huenefeld, piloted by German Capt. Hermann Koehl and Irish Capt. James Fitzmaurice, left Dublin for New York City (Apr. 12) in a single-engine all-metal Junkers monoplane. Some 37 hr. later they cracked up on Greely Island, Labrador. Rescued.
- 1928—First U. S.-Australia flight. Sir Charles Kingsford-Smith and Capt. Charles T. P. Uim, Australians, and two American navigators, Harry W. Lyon and James Warner, crossed the Pacific from Oakland to Brisbane. They went via

- Hawaii and the Fiji Islands in a trimotor Fokker (May 31-June 8).
- 1928—First trans-Arctic flight. Sir Hubert Wilkins, Australian explorer, piloted by Carl Ben Eielson, flew from Point Barrow, Alaska, to Spitsbergen (mid-April).
- 1929—First of the endurance records. With Air Corps Maj. Carl Spaatz in command and Capt. Ira Eaker as chief pilot, an Army Fokker, aided by refueling in the air, remained aloft 150 hr. 40 min. at Los Angeles (Jan. 1-7).
- 1929—First blind flight. James H. Doolittle proved the feasibility of instrument flying when he took off and landed entirely on instruments (Sept. 24).
- 1929—First rocket engine flight. Fritz von Opel, German auto maker, stayed aloft in his small rocket-powered craft for 75 sec., covering nearly 2 mi. (Sept. 30).
- 1929—First South Pole flight. Comdr. Richard E. Byrd, with Bernt Balchen as pilot, Harold I. June, radio operator, and Capt. A. C. McKinley, photographer, flew a trimotor Fokker from the Bay of Whales, Little America, over the South Pole and back (Nov. 28-29).
- 1930—First Paris-New York nonstop flight. Dieudonné Coste and Maurice Bellonte, French pilots, flew a Hispano-powered Breguet biplane from Le Bourget Field to Valley Stream, L. I., in 37 hr. 18 min. (Sept. 2-3).
- 1931—First flight into the stratosphere. Prof. Auguste Piccard, Swiss physicist, and Charles Knipfer, ascended in a balloon from Augsburg, Ger., and reached a height of 51,793 ft. in a 17-hr. flight that terminated on a glacier near Innsbruck, Austria (May 27).
- 1931—First nonstop transpacific flight. Hugh Herndon and Clyde Pangborn took off from Sabishiro Beach, Japan, dropped their landing gear and flew 4,860 mi. to near Wenatchee, Wash., in 41 hr. 13 min. (Oct. 4-5).
- 1932—First woman's transatlantic solo. Amelia Earhart, flying a Pratt & Whitney Wasp-powered Lockheed Vega, flew alone from Harbor Grace, Nfld., to Ireland in approximately 15 hr. (May 20-21).
- 1932—First westbound transatlantic solo. James A. Mollison, British pilot, took a de Havilland Puss Moth from Portmarnock, Ire., to Pennfield, N. B. (Aug. 18).
- 1932—First woman airline pilot. Ruth Rowland Nichols, first woman to hold three international records at the same time—speed, distance, altitude—was employed by N. Y.-New England Airways.
- 1933—First round-the-world solo. Wiley Post took a Lockheed Vega, *Winnie Mae*, 15,596 mi. around the world in 7 days 18 hr. 49½ min. (July 15-22).
- 1937—First successful helicopter. Hanna Reitsch, German woman pilot, flew Dr. Heinrich Focke's FW-61 in free, fully-controlled flight at Bremen (July 4).
- 1939—First turbojet flight. Just before their invasion of Poland, the Germans flew a Heinkel He-178 plane powered by a Heinkel S3B turbojet (Aug. 27).
- 1942—First American jet plane flight. Robert Stanley, chief pilot for Bell Aircraft Corp., flew the Bell XP-59 *Astracomet* at Muroc Army Base, Calif. (Oct. 1).
- 1947—First piloted supersonic flight in an airplane. Capt. Charles E. Yeager, U. S. Air Force, flew the X-1, rocket-powered research plane built by Bell Aircraft Corp., faster than the speed of sound at Muroc Air Force Base, Calif. (Oct. 14).
- 1949—First round-the-world nonstop flight. Capt. James Gallagher and USAF crew of 13 flew a Boeing B-50A Superfortress around the world nonstop from Ft. Worth, Tex., returning to same point; 23,452 mi. in 94 hr. 1 min., with 4 aerial refuelings enroute (Feb. 27-Mar. 2).
- 1950—First nonstop transatlantic jet flight. Col. David C. Schilling (USAF) flew 3,300 mi. from England to Limestone, Maine, in 10 hr. 1 min. (Sept. 22).
- 1950—First jet-plane battle. Four U. N. jets attacked by 8 to 12 Communist jets near Sinuiju, Korea. One enemy jet reported shot down; no U. N. losses (Nov. 8).
- 1951—First solo across North Pole. Charles F. Blair, Jr., flew a converted P-51 (May 29).
- 1952—First jetliner service. De Havilland Comet flight inaugurated by BOAC between London and Rome (Apr. 21). Round trip: 4 hr. 46 min. flying time.
- 1952—First transatlantic helicopter flight. Capt. Vincent H. McGovern and 1st Lt. Harold W. Moore piloted 2 Sikorsky H-19s from Westover, Mass., to Prestwick, Scot. (3,410 mi.). Trip was made in 5 steps, with flying time of 42 hr. 25 min. (July 15-31).
- 1952—First transatlantic round trip in same day. British Canberra twin-jet bomber flew from Aldergrove, N. Ire., to Gander, Nfld., and back in 7 hr. 59 min. flying time (Aug. 26).
- 1955—First transcontinental round trip in same day. Lt. John M. Conroy piloted F-86 Sabrejet across U. S. (Los Angeles-New York) and back—5,085 mi.—in 11 hr. 33 min. 27 sec. (May 21).
- 1957—First round-the-world, nonstop jet plane flight. Maj. Gen. Archie J. Old, Jr., USAF, led a flight of 3 Boeing B-52 bombers, powered with 8 10,000-lb.-thrust Pratt & Whitney Aircraft J57 engines around the world in 45 hrs., 19 min.; distance 24,325 mi.; average speed 525 m.p.h. (Completed Jan. 18).
- 1958—First transatlantic jet passenger service. Pan American inaugurated service between New York and Paris (Oct. 26).
- 1958—First domestic jet passenger service. National Airlines inaugurated service between New York and Miami (Dec. 10).

World "Class" Airplane Records

Source: National Aeronautic Association.

(Speed over measured straightaway course)

Speed (mph)	Date	Type plane	Pilot	Place
294.38	Sept. 5, '32	Gee Bee Racer	Maj. J. H. Doolittle (U.S.A.)	Cleveland
304.98	Sept. 4, '33	Wedell-Williams	James R. Wedell (U.S.A.)	Glenview, Ill.
314.32	Dec. 25, '34	Caudron	Raymond Delmotte (France)	Istres
352.39	Sept. 13, '35	Hughes Special	Howard Hughes (U.S.A.)	Santa Anna
379.63	Nov. 11, '37	BF-113R	Herman Wurster (Germany)	Augsburg
469.22	Apr. 26, '39	ME-109R	Fritz Wendel (Germany)	Augsburg
606.25	Nov. 7, '45	Gloster Meteor IV	Gp. Capt. H. Wilson (Gr. Britain)	Herne Bay
615.78	Sept. 7, '46	Gloster Meteor	Gp. Capt. E. M. Donaldson (Gr. Britain)	Little Hampton
650.80	Aug. 25, '47	Douglas D-558	Maj. Marion Carl, USMC (U.S.A.)	Muroc AF, Calif.
670.98	Sept. 15, '48	North American F-86A	Maj. R. L. Johnson (USAF)	Muroc AF, Calif.
698.51	Nov. 19, '52	North American F-86D	Capt. James S. Nash (USAF)	Salton Sea, Calif.
755.15	Oct. 29, '53	North American YF	Lt. Col. F. K. Everest, Jr. (USAF)	Salton Sea, Calif.
822.27	Aug. 20, '55	North American F-100C	Col. Horace A. Hanes (U.S.A.)	Palmdale, Calif.
1,132.14	Mar. 10, '56	Fairey Delta 2	L. Peter Twiss, D.S.C. (Gr. Britain)	Ford-Chichester, Eng.
1,207.63	Dec. 12, '57	McDonnell F-101A	Maj. Adrian E. Drew (USAF)	Edwards, Calif.
1,404.09	May 16, '58	Lockheed F104	Capt. Walter W. Irwin	Edwards, Calif.

(Fastest U. S. transcontinental: Lt. Gustav B. Klatt (USAF)—McDonnell RF-101C Voodoo—from Ontario Airport, Ontario, Calif., to Floyd Bennett Field, Brooklyn, N. Y.—2,445.9 mi. in 3 hr., 7 min., 43.64 sec.; average speed 781.741 mph—Nov. 27, 1957.)

Distance (Straight Line)

Distance (mi.)	Date	Crew	From	To
4,466.57	July 3-5, '28	Majs. A. Ferrarin, Del Prete (Italy)	Rome	Touros
4,911.93	Sept. 27-29, '29	Costes & Bellonte (France)	Le Bourget	Moulant
5,011.35	July 28-30, '31	Russel N. Boardman, John Polando (U.S.A.)	New York	Istanbul
5,656.93	Aug. 5-7, '33	Maurice Rossi, Paul Codos (France)	New York	Yracy
6,305.66	July 12-14, '37	Col. M. Gromov, Youmachev, Daniline (U.S.S.R.)	Moscow	San Jacinto, Calif.
7,158.44	Nov. 5-7, '38	Sqd. Ldr. R. Kellett (Gr. Britain)	Ismalia (Suez)	Darwin
7,916.00	Nov. 19-20, '45	Col. C. S. Irvine & Lt. Col. G. R. Stanley, (U.S.A.)	Guam	Washington, D. C.
11,235.60	Sept. 29-Oct. 1, '46	Comdr. Thomas D. Davies, Comdrs. Eugene P. Rankin, Walter S. Reid, Lt. Comdr. Ray A. Tabeing (U.S.A.)	Perth, Australia	Columbus, Ohio

(Longest light airplane distance and longest solo, international: Marion L. Boling—U. S. Beech J35 Bonanza (250 hp)—from Manila, P. I. to Pendleton, Ore., 8,856.82 mi.—July 31—Aug. 1, 1958.)

Distance (Closed Course)

Distance (mi.)	Date	Crew	Place
4,988.969	Dec. 15-17 '30	Costos & Codos (France)	Istres
5,088.267	May 31—June 2, '30	Maj. U. Maddalena & Lt. F. Cecconi (Italy)	Montecelio
6,444.881	June 7-10, '31	J. LeBrix & M. Doret (France)	Istres
6,587.441	Mar. 23-26, '32	Bossoutrot & Rossi (France)	Oran
7,239.588	May 13-15, '38	Comm. Fujita & Sgt. Maj. Takahashi (Japan)	Kisarazu
8,037.899	July 30—Aug. 1 '39	Angelo Tondi, Roberto Dagasso, Ferruccio Vignoli (Italy)	Rome
8,854.308	Aug. 1-2, '47	Lt. Col. O. F. Lassiter (U.S.A.) Capt. W. J. Valentine (U.S.A.)	Tampa, Fla.

Altitude

Height (feet)	Date	Crew	Place
43,166	June 4, '30	Lt. Apollo Soucek (U.S.A.)	Washington
43,976	Sept. 16, '32	Capt. Cyril F. Uwins (Gr. Britain)	Filton, Bristol
44,819	Sept. 28, '33	G. Lemoine (France)	Villacoublay
47,352	April 11, '34	Com. Renato Donati (Italy)	Rome
49,944	Sept. 28, '36	Sqd. Ldr. S. R. D. Swain (Gr. Britain)	South Farnborough
53,937	June 30, '37	Fl. Lt. M. J. Adam (Britain)	Farnborough
56,046	Oct. 22, '38	Col. Mario Pezzi (Italy)	Montecelio
59,445*	Mar. 23, '48	John Cunningham (Gr. Britain)	Hatfield
63,668*	May 4, '53	Walter F. Gibb (Gr. Britain)	Bristol
65,889*	Aug. 29, '55	Walter F. Gibb (Gr. Britain)	Bristol
70,308*	Aug. 28, '57	Michael Randrup (Gr. Britain)	Luton, Eng.
76,932*	Apr. 18, '58	Lt. Cdr. George C. Watkins (U.S.A.)	Edwards, Calif.
79,452*	May 2, '58	Roger Carpenter (France)	Istres
91,243*	May 7, '58	Maj. H. C. Johnson (USAF)	Palmdale, Calif.

* Jet-propelled aircraft.

(Absolute altitude: 101,516 ft.—Maj. David G. Simons (USAF)—AF-WRI-1 balloon—take-off near Crosby, Minn.; landing near Frederick, S. D.—Aug. 19-20, 1957.)

Helicopter Records

Source: National Aeronautic Association.

DISTANCE, AIRLINE

International: 1,217.14 mi.

Elton J. Smith (U. S.) in Bell 47-D1 helicopter powered by 200-hp. Franklin; from Ft. Worth, Tex., to Niagara Falls, N. Y., Sept. 17, 1952.

DISTANCE, CLOSED CIRCUIT

International: 1,199.078 mi.

Lt. Col. Harry L. Bush and Maj. William C. Dysinger (USA) in Vertol H21-C helicopter powered by 1275-hp. Wright R-1820-103; Robbinsville, N. J., Aug. 11, 1956.

ALTITUDE

International: 36,037 ft.

Jean Boulet (France) in S.E. 3150/022 "Alouette" F-ZWVB helicopter powered by Turbomeca Artouste III 500-hp engine; Bretigny sur Orge, June 13, 1958.

MAXIMUM SPEED

International: 162.743 mph.

Maj. Roy L. Anderson (USMC), pilot, Robert S. Decker, co-pilot (U. S.), in Sikorsky HR2S-1 helicopter powered by 2 Pratt & Whitney R-2800-54 engines; Windsor Locks, Conn., Nov. 11, 1956.

SPEED FOR 100 K.M. (CLOSED COURSE)

International: 141.915 mph.

Cpts. Claude E. Hargett & Ellis D. Hill (USA) in Sikorsky H-34 helicopter powered by 1275-hp. Wright R-1820; Milford, Conn., July 12, 1956.

SPEED FOR 500 K.M. (CLOSED CIRCUIT)

International: 136.014 mph.

Cpts. Claude E. Hargett & Ellis D. Hill (USA) in Sikorsky H-34 helicopter powered by 1275-hp. Wright R-1820; Milford, Conn., July 12, 1956.

SPEED FOR 1,000 K.M. (CLOSED CIRCUIT)

International: 132.633 mph.

Cpts. Claude E. Hargett & Ellis D. Hill (USA) in Sikorsky H-34 helicopter powered by 1275-hp. Wright R-1820; Milford, Conn., July 12, 1956.

Certificated U. S. Airplane Pilots

Source: Federal Aviation Agency.

Year (As of Dec. 31)	Total	Airline transport	Com- mercial	Private
1942.....	166,626	2,177	55,760	108,689
1943.....	173,206	2,315	63,940	106,950
1944.....	183,383	3,046	68,449	111,888
1945.....	296,895	5,815	162,873	128,207
1946.....	400,061	7,654	203,251	189,156
1947.....	433,241 ¹	7,059 ¹	181,912 ¹	244,270 ¹
1948.....	491,306 ²	7,762 ²	176,845 ²	306,699 ²
1949.....	525,174	9,025	187,769	328,380
1951.....	580,574	10,813	197,000	371,861
1952.....	581,218	11,357	193,575	376,286
1953.....	585,974	12,757	195,363	377,854
1954.....	613,695	13,341	201,441	398,913
1955.....	643,201	13,700	211,142	418,359
1956.....	669,079	15,295	221,096	432,688
1957.....	702,519	16,900	237,149	448,470
1958.....	731,078	18,303	245,541	467,234

¹ As of April 1, 1948. ² As of May 1, 1949. NOTE: No figures available for 1950.

U. S. Scheduled Airlines, 1958

Source: Civil Aeronautics Board.

Airline	Certificated route mileage ¹	Revenue passenger- miles, 1958
Domestic (Trunk)		
American ²	26,053	4,890,870,000
Braniff.....	12,134	913,073,000
Capital ³	11,994	1,413,041,000
Continental #29.....	6,259	419,086,000 ⁴
Delta.....	16,752	1,400,031,000
Eastern ⁵	21,650	3,811,239,000
National.....	3,455	990,251,000
Northeast.....	6,907	407,116,000
Northwest.....	10,855	1,110,862,000
Trans World (TWA) ⁶	21,914	3,661,807,000
United.....	18,651	4,915,179,000
Western ⁷	7,855	503,102,000
TOTAL.....	164,484	24,435,657,000
Domestic (Local Service)		
Allegheny.....	2,749	84,084,000
Bonanza.....	2,408	41,944,000
Central.....	4,255	26,514,000
Continental #64.....	1,860	(⁹)
Frontier.....	5,797	61,869,000
Helicopter (Chicago).....	294	1,991,000
Helicopter (Los Angeles).....	389	1,168,000
Helicopter (New York).....	222	1,726,000
Lake Central.....	2,379	29,064,000
Mohawk.....	2,278	85,060,000
North Central.....	4,364	117,575,000
Ozark.....	4,007	69,697,000
Piedmont.....	3,766	82,219,000
Southern.....	3,150	41,325,000
Pacific ⁸	1,906	78,331,000
Trans-Texas.....	4,257	53,118,000
West Coast.....	2,302	46,122,000
TOTAL.....	46,378	825,077,000
Foreign or Overseas		
Alaska Airlines ⁹	1,665	(¹⁰)
Aerovias Sud Americana ¹¹	3,292	
American ²	3,375	115,302,000
Braniff.....	8,361	88,802,000
Caribbean Atl.....	681	17,455,000
Delta.....	3,630	67,903,000
Eastern ⁵	9,586	466,693,000
Hawaiian.....	389	58,629,000
Mackey.....	1,869	16,924,000
National.....	114	65,247,000
Northwest.....	16,349	297,880,000
Pacific Northern ⁹	3,057	105,037,000
Pan American.....	190,247	3,575,878,000
Panagra.....	10,643	160,145,000
Resort ¹²	13,645	
Riddle ¹¹	2,309	
Seaboard & Western ¹¹	15,163	
South Pacific ¹³	2,776	
Trans-Caribbean ¹⁴	1,605	97,143,000
Trans Pacific.....	379	24,024,000
Trans World (TWA) ⁶	38,664	747,888,000
United.....	2,898	248,313,000
UMCA.....	378	743,000
Western ⁷	1,640	25,940,000
TOTAL.....	332,715	6,179,946,000

¹ As of Dec. 31, 1958. ² On strike 12/20/58-1/11/59.
³ On strike 10/17/58-11/23/58. ⁴ Continental #29 and #64 are combined. ⁵ On strike 11/24/58-1/2/59. ⁶ On strike 11/21/58-12/8/58. ⁷ On strike 2/22/58-6/10/58.
⁸ Formerly Southwest. ⁹ Alaska-Washington State mileage. ¹⁰ No longer reported separately from "Territorial".
¹¹ All-cargo carrier. ¹² Nonscheduled service only.
¹³ Service not yet inaugurated. ¹⁴ Inaugurated certificated scheduled operations Mar. 8, 1958.

Representative American Aircraft Types

Source: Aircraft Industries Assn. and National Aviation Education Council.

Manufacturer ¹	Model	Passengers	Max. speed, mph	Max. weight	Wingspan	Overall length	No. and make of engines
TRANSPORT							
Boeing Airplane Co.....	707-120	110-130	591 ²	248,000	130' 10"	134' 6"	4 P & W
	720	110-130	600+	203,000	130' 10"	134' 6"	4 P & W
Convair Div.....	600	96-121	635	49,100	120'	139' 5"	4 GE
	880	88-109	615	178,500	120'	129' 4"	4 GE
Douglas A.C.....	DC-6B	54	360	100,000	117' 6"	106' 6"	4 P & W
	DC-7	69-99	412	126,000	117' 6"	108' 11"	4 Wright
	DC-8	116-176	...	265,000	139' 9"	150' 6"	4 P & W
	C-133A	...	308	275,000	179' 8"	157' 6"	4 P & W
Lockheed A. Corp.....	1049H	94	346	140,000	123'	113' 7"	4 Wright
	1649A	47-99	377	156,000	150'	116' 2"	4 Wright
	C-121C	...	376	...	123' 5"	116' 2"	4 Wright
North American Aviation Co., Inc.....	UTX	4-8	575	15,330	42' 6"	43' 9"	2 GE
PERSONAL & EXECUTIVE							
Aero Des. & Eng. Co.....	560E	8	270	6,500	49'	35' 5"	2 Lycoming
	680	8	270	7,000	44'	35' 5"	2 Lycoming
Bee Aviation Assn., Inc.....	Queen Bee	4	175	2,150	32' 10"	22' 1"	1 Lycoming
Beech A. Corp.....	E18S	8	234	9,900	49' 8"	35' 2"	2 P & W
	D50A	6	214	6,300	45' 3"	31' 6"	2 Lycoming
	MS-760	4	403	7,725	33' 3"	33'	2 Turbomeca
Cessna A. C.....	172	4	135	2,200	36'	25'	1 Continental
	182	4	165	2,650	36'	26'	1 Continental
	310B	5	232	4,700	36'	27'	2 Continental
Helio A. Corp.....	Courier	5	169	3,000	39'	30'	1 Lycoming
Piper A. Corp.....	PA-18 "95"	2	130	1,500	35' 3"	22' 5"	1 Continental
	PA-22 "150"	4	141	2,000	29' 3"	20' 6"	1 Lycoming
	PA-24 "180"	4	167	2,550	36'	24' 8"	1 Lycoming
Taylorcraft, Inc.....	Zephyr 400	4	160	2,750	34' 8"	24' 4"	1 Continental
HELICOPTERS							
Bell H. Corp.....	47G	3	86	2,350	.....	41' 5 ^{1/2}	1 Franklin
	204	6	142	5,725	.....	53 ^{1/2}	1 Lycoming
Cessna A. C., Hel. Div.....	CH-1C	4	122	3,100	.....	42' 6 ^{1/2}	1 FSO 526A
Doman Helicopters, Inc.....	LZ5	7	100	5,200	.....	38'	1 Lycoming
Hiller Helicopters.....	UH12-C	3	84	2,500	.....	40' 6 ^{1/2}	1 Franklin
Kaman A. Corp.....	K600	5	95	6,800	.....	47 ^{1/2}	1 P & W
Sikorsky A. Div.....	S-55A	10	112	7,500	.....	62' 7 ^{1/2}	1 Wright
	S-56	36	130	31,000	.....	82' 10 ^{1/2}	1 Wright
	S-58	18	123	13,000	.....	62' 7 ^{1/2}	1 Wright
Vertol A. Corp.....	44	15-19	110	14,350	.....	56' 11 ^{1/2}	1 Wright
	YH-16	44	...	.....	.....	86 4 ^{1/2}	2 P & W

¹ A.C.—Aircraft Company; A. Corp.—Aircraft Corporation; A. Div.—Aircraft Division. ² Blades unfolded.
³ Cruising speed.

U. S. Warplane Production Record, 1940-45

Source: Civil Aeronautics Administration.

Type	1940	1941	1942	1943	1944	1945	1940-45
Total.....	6,019	19,433	47,836	85,898	96,318	47,714	303,218
Bombers.....	1,191	4,115	12,627	29,355	35,003	16,492	98,783
Fighters.....	1,685	4,416	10,769	23,988	38,873	21,696	101,427
Photographic and reconnaissance.....	121	727	1,468	734	259	531	3,840
Transport.....	290	532	1,984	7,012	9,834	4,629	24,281
Traîner.....	2,731	9,373	17,631	19,939	7,577	1,309	58,560
Other*.....	1	270	3,357	4,870	4,772	3,057	16,327

* Includes special purpose, rotary wing, and liaison aircraft.

Important American Aircraft Types (U. S. Air Force)

Source: U. S. Department of Defense.

Type	Manufacturer	Power plant ¹	Max. take-off ratings	Span, feet	Length, feet	Height, feet	Weight	Speed, mph	Crew
BOMBERS									
B-26	Douglas	2 R2800 PW-79	2,000 hp.	70.0	51.3	18.5	40,000	Over 300 ³	3
B-29	Boeing	4 R3350 W-57 or 57A	2,200 hp.	141.2	99.0	27.8	140,000	345 ³	11
B-36J	Convair	6 R4360 PW-53	3,800 hp.	230.0	162.0	46.8	370,000	Over 435	15
		4 J47 GE-19	52,000 lb.						
B-45C	North American	4 J-47 GE-9 or 15	5,200 lb.	89.0	75.3	25.2	110,000	500 knot class	4
B-47E	Boeing	6 J47 GE-25	6,000 lb.	116.0	109.8	28.0	200,000	600 class	3
B-50	Boeing	4 R4360 PW-35	3,500 hp.	141.2	99.0	32.7	170,000	Over 400	10
B-52D	Boeing	8 J57	10,000 lb.	185.0	156.5	48.3	Over 400,000	Over 650	6
B-57B	Martin	J65 W-5	7,200 lb.	64.0	65.5	14.8	50,000	Over 500	2
B-58	Convair	4 J-79	.....	57.0	97.0	31.0	150,000	Over 1,200	3
B-66	Douglas	2 J71 A-13	10,000 lb.	72.5	75.1	23.6	83,000	600-700	3-5
FIGHTERS									
F-80C	Lockheed	1 J33 A-31 or 35	5,200 lb.	38.9	34.5	11.3	16,000	600 class	1
RF-84F	Republic	1 J65 W-3	7,200 lb.	83.6	47.4	15.0	25,000	Over 650	1
F-84F	Republic	J65 W-3	7,200 lb.	33.6	43.4	15.0	25,000	Over 650	1
F-84G	Republic	1 J35 A-29	5,600 lb.	36.4	38.1	12.6	18,000	600 class	1
F-86D	North American	1 J47 GE-33	7,650 lb. ²	37.1	40.3	15.0	18,000	650 class	1
F-86F	North American	1 J47 GE-27	5,970 lb.	37.1	37.5	14.7	17,000	650 class	1
F-86H	North American	1 J73 GE-3	.....	37.1	38.8	15.0	.....	Over 650	1
F-89	Northrop	2 J35 A-33	5,400 lb.	56.1	53.4	17.6	40,000	600 class	2
F-89D	Northrop	2 J35 A-35	5,600 lb.	57.8	53.8	17.5	40,000	600 class	2
F-89H	Northrop	J35 A-35	5,600 lb.	59.6	53.8	17.5	45,000	600 class	2
F-94A & B	Lockheed	J33 A-33	4,600 lb.	37.5	40.1	12.7	16,000	600 class	2
F-94C	Lockheed	1 J48 P-5	6,250 lb.	37.3	44.5	14.9	20,000	600 class	2
F-100	North American	J57 P-7	15,000 lb.	38.6	47.8	15.3	28,000	Over 1,000	1
F-100A	North American	1 J57 P-7	10,000 lb.	38.6	47.8	15.3	.....	Supersonic	1
F-101A	McDonnell	2 J57 P-13	10,000 lb.	39.7	67.4	18.0	.....	Supersonic	1
F-102A	Convair	1 J57 P-23	15,000 lb.	38.0	68.0	20.0	.....	Supersonic	1
F-104	Lockheed	J79	15,000 lb.	21.0	54.0	13.0	20,000	Over 1,400	1
F-105	Republic	J-75-5	15,000 lb.	35.0	63.0	19.8	.....	Supersonic	1
F-106	Convair	J75-9	15,000 lb.	38.0	70.9	20.4	.....	Over 1,000	1
F-107	North American	J75	15,000 lb.	36.0	61.0	19.0	38,000	Over 1,000	1
TRANSPORTS									
C-45H	Beech	2 R985-AN-14B P	450 hp.	47.6	34.2	10.7	9,000	190 top ³	2
C-46F	Curtiss Wright	P&W R2800-75	2,000 hp.	108.0	76.3	21.7	55,000	230 ³	4
C-47D	Douglas	2 R1830-90D P	1,200 hp.	95.0	64.4	16.9	33,000	200 top ³	5
C-54G	Douglas	4 R2000-9 P	1,450 hp.	117.5	93.8	27.5	82,500	300 top	3
C-74	Douglas	4 R4360-49 P	3,500 hp.	173.3	124.2	43.8	165,000	Over 300	5
C-82	Fairchild	2 P&W R2800-85	2,100 hp.	106.5	77.1	26.3	54,000	250 mph (top)	5
C-97	Boeing	4 R4360-35 A P	3,250 hp.	141.2	110.3	38.3	175,000	Over 350	5
C-118A	Douglas	4 R2800-CB-17 P	2,200 hp.	117.5	106.8	28.8	107,000	Over 360	5
C-119G	Fairchild	2 R3350-85 W	3,250 hp.	109.3	86.5	26.2	74,000	250	5
C-121	Lockheed	4 R3350	3,250 hp.	123.0	116.0	23.0	125,000	370	5
C-122	Chase	2 R1820-101	1,425 hp.	86.4	56.7	21.3	30,000	220 top	2
C-123	Fairchild	2 R2800-99W P	2,500 hp.	119.0	75.7	34.1	50,000	240 top	2
C-124C	Douglas	4 R4360-63 P	3,800 hp.	174.1	130.0	48.3	185,000	Over 300	5
C-130	Lockheed	4 T56 A-1	3,750 hp.	132.7	94.8	38.3	108,000	Over 350	4
C-131	Convair	R2800-99W	2,500 hp.	91.7	74.7	27.3	43,000	Over 300	2
C-131B	Convair	2 R2800-103-W P	2,500 hp.	105.3	79.2	28.1	47,000	Over 300 ³	2
KC-135	Boeing	4 J-57-43W	10,000 lb.	130.8	136.3	36.4	250,000	Over 550	4
HELICOPTERS									
H-5H	Sikorsky	1 R985-AN-5 P	450 hp.	49.0	41.1	13.0	6,500	105 top	2
H-13E	Bell	1 O-335-SA	200 hp.	35.1	31.0	9.5	2,500	100	1
H-19	Sikorsky	1 R1340-57 P	600 hp.	53.0	42.1	15.5	7,500	Over 100	...
H-21C	Vertol	1 R1820-103W	1,425 hp.	44.0	52.5	14.5	15,000	Over 110 ³	2
H-23B	Hiller	1 Franklin 6V4-200-C-33	200 hp.	35.0	38.7	9.8	2,500	84	1
H-25	Vertol	1 Continental R975-42	550 hp.	35.0	31.9	12.5	6,000	Over 100	2
H-34	Sikorsky	R1820-84	1,425 hp.	56.0	49.1	15.8	13,300	132	2
H-37	Sikorsky	2 PW R2800-54	1,900 bhp. ⁴	72.0	88.3	22.3	.....	.....	3

¹ A—Allison; GE—General Electric; P—Pratt & Whitney; W—Wright. ² With afterburner. ³ Knots. ⁴ At 2,600 rpm.

HISTORICAL AND NEWS EVENTS

FROM ANCIENT TO MODERN TIMES

Compiled by

ENCYCLOPAEDIA BRITANNICA

(See also our section entitled *Headline History of Our Times*)

- Actium, Battle of** (31 B.C.). Octavius defeats Mark Anthony.
- Alexander the Great** conquers Greece, Persia, Egypt and part of India (334-323 B.C.). Major battles: Granicus (334 B.C.), Issus (333), Arbela (331).
- American Revolution** (1775-83). Outstanding events: 1775—Battle of Lexington-Concord (Apr. 19). Battle of Bunker Hill (June 17). 1776—Battle of Long Island (Aug. 27). 1777—Burgoyne surrenders at Saratoga (Oct. 17). 1781—Battle of Cowpens (Jan. 17). Battle of Yorktown (Sept. 28-Oct. 19), and British surrender by Cornwallis. 1783—Treaty signed by U. S. and Britain (Sept. 3).
- "Babylonian Captivity"** of Papacy with seat at Avignon (1309-77).
- Bacon's Rebellion** (May 10-Oct. 18, 1676). Nathaniel Bacon leads unsuccessful insurrection in Virginia because of abuses in government administration and taxation.
- Balfour Declaration** (Nov. 2, 1917) promises Jewish homeland in Palestine.
- Balkan Wars** (1912-13). Bulgaria, Serbia, Greece and Montenegro defeat Turkey; later, Bulgaria attacks Serbia and Greece and is defeated.
- Bastille destroyed** (July 14, 1789).
- Benedictine Order** founded at Monte Cassino (c. A.D. 529).
- Bible** translated by Wycliffe into English (1382-84); Douay Version published (1582 & 1609-10); King James Version published (1611).
- Black Death** (beginning c. 1347) wipes out at least one-quarter of population of Europe.
- Black Friday** (Sept. 24, 1869). Financial panic results from gold corner in U. S.
- Boer War** (1899-1902). Boers defeated by British; sign peace treaty at Pretoria (May 31, 1902).
- Boston Massacre** (Mar. 5, 1770). British soldiers fire on Boston mob, killing 3.
- Boston Tea Party** (Dec. 16, 1773). Colonials dump tea in Boston Harbor because of tea tax.
- Boxer Rebellion** (1900). Uprising by secret society in northern China against foreigners.
- Brown, John**, and 18 followers raid Harpers Ferry (Oct. 16, 1859) and seize arsenal; taken prisoners by U. S. Marines (Oct. 18); Brown hanged (Dec. 2).
- Burr-Hamilton duel**. *See* Hamilton.
- Cape-to-Cairo Railroad** completed (1918).
- Carthage** founded by Phoenicians (c. 900 B.C.); destroyed by Romans (146 B.C.).
- Châlons, Battle of** (A.D. 451). Attila the Hun defeated by Romans.
- Charlemagne** crowned Emperor of the West (A.D. 800).
- Charles I** beheaded (Jan. 30, 1649). *See also* Great Rebellion.
- Children's Crusade** (1212). About 50,000 unarmed children set out to recover Holy Sepulchre; all lost or die on the way.
- Chinese-Japanese War** (1894-95). Japan wins Formosa, Pescadores and part of southern Manchuria; Korea becomes independent (annexed by Japan 1910).
- Christianity** made official religion of Roman Empire (A.D. 330).
- Civil War, American** (1861-65). Outstanding events: 1861—First Battle of Bull Run (July 21). 1862—Monitor defeats Merrimac (Mar. 9). Battle of Antietam (Sept. 15-17). 1863—Lincoln's Emancipation Proclamation (Jan. 1). Battle of Gettysburg (July 1-3). Grant captures Vicksburg (July 4). Battle of Lookout Mountain (Nov. 23-25). 1864—Battle of the Wilderness (May 5-6). Sherman's March through Georgia (Nov. 14-Dec. 22). 1865—Lee surrenders at Appomattox (Apr. 9).
- Code Napoléon**, unified codification of French law, adopted (1804).
- Code of Hammurabi** (c. 2300 B.C.). Oldest existing written code of laws.
- Communist Manifesto** issued by Karl Marx and Friedrich Engels (1848).
- Compromise of 1850** admits California as free state; organizes Utah and New Mexico as territories without mention

- of slavery; prohibits slave trade in D. C.; returns fugitive slaves to masters; pays Texas \$10 million for her claim to New Mexico.
- Confederacy** proclaimed by seceding states (Feb. 9, 1861); Jefferson Davis named President.
- Congress of Vienna** (1814-15). European powers, under leadership of Metternich, meet to settle problems of territory and government resulting from Napoleonic Wars.
- Constantinople** founded (as Byzantium) by Greeks (c. 660 B.C.); made capital of Eastern Roman Empire by Constantine the Great (A.D. 330); captured by Turks (1453); renamed Istanbul (1930).
- Council of Nicaea** (A.D. 325). Called by Constantine the Great; establishes official creed of Christianity (Nicene Creed).
- Council of Trent** (1545-64). Called by Pope Paul III, at suggestion of Emperor Charles V, to establish Catholic Counter Reformation.
- "Coxey's Army"** (March. 25-May 1, 1894). Jacob S. Coxey leads 20,000 unemployed on Washington, D. C.
- Crimean War** (1853-56). Russia loses claim to Greek Christians under Turkish flag.
- Crucifixion of Christ** (c. A.D. 29). According to New Testament, Christ rose from the dead 2 days later.
- Crusades** (1096-1291). European Christians, in 7 periods of conflict, attempt to recover Holy Land from Moslems. *See also* Children's Crusade.
- Custer massacre** (June 25, 1876). Gen. George A. Custer and his forces killed at Battle of Little Big Horn by Sioux.
- Divine Comedy** begun by Dante (1307); probably finished in last year of his life (1321).
- Dominican Order** founded (1215).
- Dorr Rebellion** (1841-42). Thomas W. Dorr leads unsuccessful attempt to extend franchise in Rhode Island; franchise extended 1843.
- Dred Scott case** (1846). Dred Scott, Negro slave, sues for freedom on claim he has lived for a time on free soil; U. S. Supreme Court rules (Mar. 6, 1857) that Scott is not a citizen and has no standing in court.
- Dreyfus case** (1894). Capt. Alfred Dreyfus found guilty of treason in France and sentenced to Devil's Island. Finally acquitted (1906).
- Easter Rebellion** (April. 24, 1916). Irish nationalists unsuccessfully attempt to throw off British rule.
- Edict of Nantes** (1598). Extends toleration to Huguenots (French Protestants); its revocation (1685) causes widespread persecution of Huguenots.
- Evolution trial.** *See* Scopes.
- Fawkes, Guy.** *See* Gunpowder Plot.
- Feudalism**, lord-vassal social system, established throughout Europe (9th century); begins to break up (14th-15th centuries).
- Franciscan Order** founded (1210).
- Franco-Prussian War** (1870-71). France defeated by German states; loses Alsace-Lorraine.
- Freedom of press** established in America as John Peter Zenger, New York editor, is acquitted in libel case against Gov. Cosby (1735).
- French and Indian War.** *See* Seven Years' War.
- French Revolution** (1789-99). Outstanding events: 1789—Bastille destroyed (July 14). Feudal rights abolished (Aug. 4). 1792—September Massacres (Sept. 2-6). France becomes republic (Sept. 21). 1793—Louis XVI beheaded (Jan. 21); Marie Antoinette beheaded (Oct. 16). Reign of Terror (spring 1793-summer 1794). 1795—Napoleon heads army. Directory established (Oct. 27). (Revolution merges into Napoleonic Wars.)
- Gold rush** develops as gold is discovered at Sutter's Mill, near Sacramento, Calif. (Jan. 2, 1848).
- Great Rebellion** (1642-49). Civil wars in England. Charles I beheaded (Jan. 30, 1649); Cromwell establishes Commonwealth (1649).
- Great Wall of China** begun (255 B.C.).
- Gregorian Calendar** replaces Julian Calendar in Catholic countries (1582), in Britain and her Colonies (1752), in Russia (1918).
- Gunpowder Plot** (1605). Guy Fawkes, agent of conspirators against King and Parliament, seized as he is about to blow up House of Lords (Nov. 5).
- Hamilton-Burr duel** (July 11, 1804) results in Hamilton's death next day.
- Hastings, Battle of** (1066). Normans led by William the Conqueror invade England.
- Hegira** (A.D. 622). Mohammed flees from Mecca to Medina. Year I of Moslem calendar.
- Holy Alliance** formed by Russia, Austria and Prussia (Sept. 26, 1815); intended to regulate government according to Christianity but actually used for repressing political liberty.
- Holy Roman Empire** founded by Otto the Great (962); dissolved by Napoleon (1805).
- Huguenots.** *See* Edict of Nantes; St. Bartholomew Massacre.

Hundred Years' War (1338-1453). England loses lands in France. Major battles: Crécy (1346), Poitiers (1356), Agincourt (1415).

Industrial Revolution begins in England (c. 1760). Machines gradually replace hand tools, bringing about vast industrial and social changes.

Inquisition established (c. 1233) to combat heresy; put under state control in Spain (1480); abolished in France (1772), in Spain (1834).

International, First (1864). Founded in London to further world socialism; dissolved in Philadelphia (1876).

International, Second (1889). Founded in Paris to celebrate 100th anniversary of French Revolution.

International, Third (1919). Founded in Moscow as protest against inactivity of Second International; dissolved (1943). Also called *Communist International* or *Comintern*.

Jamestown, Va., settled by British under Capt. John Smith (1607).

Jerusalem destroyed by Nebuchadnezzar (586 B.C.); returned to Jews by Cyrus (538 B.C.); captured by Titus (A.D. 70); captured by Crusaders (1099); captured by Saladin (1187).

Jesuits (Society of Jesus) founded by Ignatius of Loyola (1534).

Joan of Arc burned at stake (1431).

Justinian Code (A.D. 529). Codification of Roman law by Byzantine Emperor Justinian.

Kansas-Nebraska Act (1854) abrogates Missouri Compromise; permits territories of Kansas and Nebraska local option on slavery question; results in rioting and bloodshed.

Leopold-Loeb case (1924). Nathan Leopold and Richard Loeb kidnap and kill Bobby Franks in Chicago (May 22); sentenced to life imprisonment (July 21); Loeb killed by fellow convict (Jan. 28, 1936); Leopold receives parole (Feb. 20, 1958).

Lindbergh flight (May 20-21, 1927). Charles A. Lindbergh makes first solo flight across Atlantic.

Locarno Conferences (Oct. 1925) seek to insure peace and preserve boundaries in Europe by mutual guarantees.

Louis XVI beheaded (Jan. 21, 1793). *See also* French Revolution.

Magna Carta, charter listing rights and privileges of English barons, proclaimed at Runnymede (June 15, 1215); King John forced by barons to accept it.

Manhattan Island purchased by Peter Minuit from Indians (1626) for trinkets worth 60 guilders (about \$24).

Mary, Queen of Scots, convicted in England (1586) of being accomplice in plot to murder Queen Elizabeth; beheaded (Feb. 8, 1587).

Maximilian, Emperor of Mexico, executed by Benito Juárez (June 19, 1867) after Napoleon III of France withdraws support of Mexican empire.

Merrimac. *See* Monitor.

Mexican War (1846-1848) ends in American victory; Treaty of Guadalupe Hidalgo signed (1848).

Ming Dynasty (1368-1644). Noted for great development of culture and art in China.

Missouri Compromise (1820) admits Maine as free state, Missouri as slave state; slavery prohibited in Louisiana Territory north of 36° 30'. *See also* Kansas-Nebraska Act.

Monitor, Union ship, defeats *Merrimac*, Confederate ship (Mar. 9, 1862).

Mooney, Tom, sentenced to death for bomb explosion in San Francisco during Preparedness Day Parade (1916); sentence commuted to life (1918); freed (1939).

Mormonism (Church of Jesus Christ of Latter-day Saints) founded by Joseph Smith at Fayette, N. Y. (Apr. 6, 1830).

Moses leads Jews out of Egypt (c. 1300 B.C.).

Napoleonic Wars (1796-1815). Outstanding events: 1798—Campaign in Egypt. 1805—Nelson defeats French at Battle of Trafalgar (Oct. 21). French defeat Russians and Austrians at Battle of Austerlitz (Dec. 2). 1813—French defeated in Battle of Leipzig (Oct. 16-19). 1814—Napoleon abdicates (Apr. 11); sent to Elba. 1815—Napoleon flees Elba (Feb. 26). Napoleon defeated in Battle of Waterloo (June 18). *See also* Congress of Vienna.

Northwest Ordinance (1787). Adopted for territory north of Ohio River. Establishes method for admitting new states; prohibits slavery in territory.

Orthodox Eastern Church excommunicated by Pope Leo IX (1054); schism final between Western and Eastern Churches.

Parliament established in England (1295).

Peloponnesian War (431-404 B.C.). Sparta under Lysander defeats Athens.

Persian Wars (499-478 B.C.). Greece defeats Persia. Major battles: Marathon (490 B.C.), Thermopylae (480), Salamis (480), Plataea (479), Mycale (479).

Pilgrims land at Plymouth Rock (Dec. 21, 1620).

Plague in London ("Great Plague") causes 68,596 deaths (1665).

Plymouth Rock. *See* Pilgrims.

Poland partitioned out of existence among Prussia, Russia and Austria (1772, 1793, 1795).

Pony Express (1860-61). Between St. Joseph, Mo., and Sacramento, Calif.

Pullman strike (June-July 1894). Strike smashed by Federal troops; Eugene V. Debs jailed for contempt.

Punic Wars (264-146 B.C.). Romans defeat Carthaginians and destroy Carthage (146 B.C.). Major battles: Cannae (216 B.C.), Zama (202).

Rasputin ("Black Monk"), confessor to Tsarina, murdered (Dec. 31, 1916).

Reformation (beginning 16th century). Outstanding events: Luther nails his 95 theses to church door at Wittenberg, Germany (1517). Zwingli begins Reformation in Switzerland (1519). Luther burns papal bull and canon law (1520). Calvin publishes *Institutes of the Christian Religion* (1536). Act of Supremacy makes King head of Church of England (1534). Calvin organizes Geneva as theocratic state (1541). Knox establishes Presbyterian Church in Scotland (1560).

Renaissance (14th-16th centuries). Revival of classical learning in Europe stimulates vigorous activity in arts, literature, humanities, etc.

Roman Empire established under Augustus (27 B.C.); divided into Western and Eastern Empires (A.D. 395); Western Empire falls (476); Eastern Empire falls with capture of Constantinople (1453).

Rome founded, according to legend, by Romulus (753 B.C.); burned, perhaps by Nero (A.D. 64); sacked by Visigoths under Alaric (410); sacked by Vandals under Genserik (455).

Russo-Japanese War (1904-05). Port Arthur surrenders to Japanese (Jan. 2, 1905); Treaty of Portsmouth, N. H. (Sept. 5).

Russo-Turkish War (1877-78). Power of Turkey in Europe broken; redvision of southeastern Europe at Congress of Berlin (June 13-July 13, 1878).

St. Bartholomew, Massacre of (Aug. 24-Oct. 3, 1572). Some 50,000 Huguenots (French Protestants) killed in Paris and provinces at instigation of Catherine de Médici.

St. Valentine's Day Massacre in Chicago (Feb. 14, 1929). 6 members of Moran gang lined up against wall by rival gang and shot.

Savonarola, Florentine priest and dictator, tried for sedition and heresy (1498); hanged and burned (May 23).

Scopes Evolution Trial held at Dayton, Tenn. (July 10-21, 1925). John T. Scopes prosecuted by William Jennings Bryan for teaching evolution in Tennessee

school; defended by Clarence Darrow. Scopes convicted but decision later set aside.

Seven Years' War (1756-63). France, Austria, Sweden, Russia vs. England and Prussia. Olive defeats French at Battle of Plassey (1757), giving British supremacy in India; England wins Canada; Prussia retains Silesia. (American phases of war known as French and Indian War, 1754-63.)

Shays' Rebellion (1786). Capt. Daniel Shays leads unsuccessful insurrection against Massachusetts government because of economic crisis.

Slavery in British Empire abolished by Parliament (1833).

Slavery introduced into American Colonies at Jamestown, Va. (1619); abolished in U. S. by 13th Amendment (1865).

Snyder-Gray case (1927). Ruth Snyder and Judd Gray murder her husband, Albert Snyder (Mar. 20); both executed at Sing Sing (Jan. 12, 1928).

Spanish-American War (1898). Outstanding events: U. S. battleship *Maine* blown up in Havana harbor (Feb. 15). Dewey destroys Spanish fleet at Manila (May 1). Charge of San Juan Hill (July 1). Cervera's fleet destroyed off Santiago, Cuba, by U. S. ships (July 3). Treaty of Paris (Dec. 10).

Spanish Armada destroyed by British (1588).

Spartacus, Roman slave and gladiator, leads unsuccessful slave insurrection (73-71 B.C.).

Stamp Act (effective Nov. 1, 1765). First direct tax placed on America by Britain; protested by Stamp Act Congress in New York (Oct. 7-25); repealed by Britain (Mar. 18, 1766).

Texan war of independence from Mexico (1836). Major battles: Alamo (Mar. 6), San Jacinto (Apr. 21).

Thaw-White case (1906). Harry K. Thaw, millionaire, murders Stanford White, noted architect, in Madison Square Garden (June 25).

Thirty Years' War (1618-1648). England, Holland, France, Sweden and German Protestants against Spain, Italy and German Catholics; Peace of Westphalia ends conflict, Alsace going to France, Swiss independence recognized, and German secularized states given religious freedom.

Tours, Battle of (A.D. 732). Charles Martel defeats Moslems, checking their advance in western Europe. Also called Battle of Poitiers.

Trojan War (c. 1200 B.C.). Greeks defeat Trojans; destroy city of Troy.

Tutankhamen's tomb discovered near Luxor by Lord Carnarvon and Howard Carter (1922).

Tweed Ring, corrupt New York political group headed by Wm. Marcy Tweed, Tammany Boss, broken up (1872); Tweed convicted (Nov. 5).

War of 1812 (1812-1815). Outstanding events: 1813—Battle of Lake Erie (Sept. 10). 1814—British burn White House at Washington (Aug. 24-25). Battle of Lake Champlain (Sept. 11). U. S. signs treaty with Britain at Ghent (Dec. 24). 1815—Battle of New Orleans (Jan. 8). (Slowness of communications was responsible for continuation of hostilities after treaty.)

Wars of the Roses (1455-85). House of York (white rose) against House of Lancaster (red rose). Richard III slain at Battle of Bosworth Field (1485); Tudor line started by Henry VII.

Whisky Insurrection (July-Nov. 1794). Farmers in western Pennsylvania revolt unsuccessfully against excise tax of 1791.

Witch trials in Salem, Mass., result in death sentences for 19 women by Judge Samuel Sewall (1692).

Woman suffrage first granted in U. S. by Wyoming Territory (1869).

World War I (1914-18). Central Powers (Austria-Hungary, Germany, Bulgaria, Turkey) vs. Allies (U. S., Britain, France, Russia, Belgium, Serbia, Greece, Rumania, Montenegro, Portugal, Italy, Japan). Outstanding events: 1914—Austria declares war on Serbia (July 28). Germany declares war on Russia (Aug. 1) and on France (Aug. 3). Germany invades Belgium (Aug. 4). Britain declares war on Germany (Aug. 4). Germans defeat Russians at Tannenberg, East Prussia (Aug. 31). First Battle of the Marne (Sept. 5-12). 1915 Dardanelles campaign against Turkey fails. 1916—Battle of Jutland (May 31). Battles of the Somme (July-Nov.). Germans turned back at Verdun (Sept. 3). Rumania overrun by Central Powers; fall of Bucharest (Dec. 6). 1917—Germany begins unrestricted submarine warfare. U. S. declares war (Apr. 6). Battle of Caporetto (Oct. 24-Dec. 26). 1918—Second Battle of the Somme (Aug. 21-Sept. 3). Third Battle of the Aisne (May 27-June 6). Second Battle of the Marne (July 15-Aug. 7). U. S. troops take St. Mihiel (Sept. 13). Battle of the Meuse-Argonne (Sept. 20-Nov. 11). Allies break Hindenburg line (Oct. 5). Armistice signed (Nov. 11).

Zenger case. See Freedom of press.

Firsts in America

Occasionally other sources may differ with this list. Our selection is based on our editorial judgment.

Admiral in U. S. Navy: David Glasgow Farragut, 1866.

Air-mail route, first transcontinental: Between New York City and San Francisco, 1920.

Assembly, representative: House of Burgesses, founded in Virginia, 1619.

Bank established: Bank of North America, Philadelphia, 1781.

Birth in America of English parents: Virginia Dare, born Roanoke Island, N. C., 1587.

Botanic garden: Established by John Bartram in Philadelphia, 1728. (Oldest existing one was established in Cambridge, Mass., in 1807.)

Cartoon, colored: "The Yellow Kid," by Richard Outcault, in *New York World*, 1895.

College to confer degrees on women: Oberlin (Ohio) College, 1841.

College to establish coeducation: Oberlin (Ohio) College, 1833.

Electrocution of a criminal: William Kemmler in Auburn Prison, Auburn, N. Y., Aug. 6, 1890.

Five and Ten Cents Store: Founded by Frank Woolworth, Utica, N. Y., 1879 (moved to Lancaster, Pa., same year).

Fraternity: Phi Beta Kappa; founded Dec. 5, 1776, at College of William and Mary.

Law to be declared unconstitutional by U. S. Supreme Court: Judiciary Act of 1789. Case: Marbury vs. Madison, 1803.

Library, circulating: Philadelphia, 1731.

Newspaper published for a continuous period: *The Boston News-Letter*, April, 1704.

Newspaper, illustrated daily: *New York Daily Graphic*, 1873.

Newspaper published daily: *Pennsylvania Packet and General Advertiser*, Philadelphia, Sept., 1784.

Newsreel: Pathé Frères of Paris, in 1910, circulated a weekly issue of their *Pathé Journal*.

Oil well, commercial: Titusville, Pa., 1859.

Panel quiz show on radio: *Information Please*, May 17, 1938.

Postage stamps issued: 1847.

President pro tempore of the U. S. Senate: John Langdon, of New Hampshire, 1789.

Railroad, transcontinental: Central Pacific and Union Pacific railroads joined at Promontory, Utah, May 10, 1869.

Savings bank: The Provident Institute for Savings, Boston, 1816.

Science museum: Founded by Charleston (S. C.) Library Society, 1773.

Skyscraper: Home Insurance Co., Chicago, 1885 (10 floors, 2 added later).

Slaves brought into America: At Jamestown, Va., 1619, from a Dutch ship.

Sorority: Kappa Alpha Theta, at De Pauw University, 1870.

State to abolish capital punishment: Michigan, 1847.

State to enter Union after original 13: Vermont, 1791.

Steam-heated building: Eastern Hotel, Boston, 1845.

Steam railroad (carried passengers and freight): Baltimore & Ohio, 1830.

Strike on record by union: Journeymen Printers, New York, 1776.

Subway: Opened in Boston, 1897.

"Tabloid" picture newspaper: *The Illustrated Daily News* (now *The Daily News*), New York City, 1919.

Vaudeville theater: Gaiety Museum, Boston, 1883.

Woman cabinet member: Frances Perkins, Secretary of Labor, 1933.

Woman candidate for President: Victoria Claflin Woodhull, nominated by National Woman's Suffrage Assn. on ticket of National Radical Reformers, 1872.

Woman doctor of medicine: Elizabeth Blackwell; M.D. from Geneva Medical College of Western New York, 1849.

Woman elected governor of a state: Mrs. Nellie Tayloe Ross, Wyoming, 1925.

Woman elected to U. S. Senate: Mrs. Hattie Caraway, Arkansas; elected Nov. 1932.

Woman graduate of law school: Mrs. Ada H. Kepley, Union College of Law, Chicago, 1870.

Woman member of U. S. House of Representatives: Jeannette Rankin; elected Nov. 1916.

Woman member of U. S. Senate: Mrs. Rebecca Latimer Felton of Georgia; appointed Oct. 3, 1922.

Woman suffrage granted: Wyoming Territory, 1869.

Written constitution: *Fundamental Orders of Connecticut*, 1639.

Societies and Foundations

Source: Questionnaires to Societies and Foundations.

AMERICAN BIBLE SOCIETY: Founded 1816 to translate, publish and encourage wider distribution of Holy Scriptures.

AMERICAN RED CROSS: Founded 1881. Program includes services to armed forces and their families, disaster relief, and other health, safety, and welfare activities.

BOY SCOUTS OF AMERICA: Founded 1910. Purpose is to promote character development, citizenship training and physical fitness for boys.

CAMP FIRE GIRLS, INC.: Founded 1910, to perpetuate spiritual ideals of the home and to stimulate and aid habits making for health and character.

CARNEGIE CORPORATION OF NEW YORK: Founded 1911 by Andrew Carnegie to advance knowledge and understanding in U. S. and certain British Commonwealth areas. Grants awarded to colleges and organizations engaged in research. Assets (1958): \$196,000,000 (cost basis).

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE: Founded 1910 by Andrew Carnegie. To work toward international peace. Assets (June 30, 1958): \$18,631,723.

COMMONWEALTH FUND: Founded 1918 by Mrs. Stephen V. Harkness. Purpose is to promote health through grants for medical education, research, etc. Endowment (1958): \$77,000,000.

DUKE ENDOWMENT, THE: Founded 1924 by James B. Duke. Purpose is to assist North and South Carolina philanthropic institutions, including universities, hospitals, orphanages and the Methodist Church. Assets (Dec. 31, 1956): \$142,000,000. (book value).

ELKS, BENEVOLENT AND PROTECTIVE ORDER OF: Founded 1868 to practice charity, justice, brotherly love and fidelity. Charitable expenditures (1958): \$7,000,000 (by Lodges, 1880-1937, \$139,450,529).

FIELD FOUNDATION, INC.: Founded 1940 by Marshall Field. Present purpose is to promote the welfare of children and improve intercultural and interracial relations. Assets (1959): Over \$30,000,000.

FORD FOUNDATION: Founded 1936 by Henry and Edsel Ford to advance human welfare by identifying problems of national importance and granting funds for efforts toward their solution, primarily through educational means. Assets (Sept. 30, 1958): \$767,472,893.

FREEMASONRY: Originated in England (1717); brought to America about 1733. It includes Symbolic Lodge (3 basic degrees), Royal Arch, Council of Royal and Select Masters, Knights Templar, and Scottish Rite. It is universal in its philosophy, nonsectarian in membership.

GIRL SCOUTS OF THE U.S.A.: Founded 1912. Purpose is to help girls develop as

happy, resourceful individuals. Activities program emphasizes out-of-doors, creative arts, and community service.

GUGGENHEIM (JOHN SIMON) MEMORIAL FOUNDATION: Founded 1925. Purpose is to offer fellowships in all fields. Endowment (1957): \$45,000,000.

KELLOGG FOUNDATION: Founded 1930 by W. K. Kellogg. Operates by making grants supporting experimental programs in health, agricultural and educational fields. Assets (Aug. 31, 1958): \$73,358,997, book value; \$176,580,972, market value.

KIWANIS INTERNATIONAL: Founded 1915 to render service to youth, community and nation.

KNIGHTS OF COLUMBUS: Founded 1882. Purpose is to render pecuniary aid to its sick, disabled and needy members; promotes social and intellectual intercourse among its members and conducts educational, charitable, social, relief and religious work.

KNIGHTS OF PYTHIAS: Founded 1864. Purpose is to promote social and fraternal well-being of its members. Auxiliary bodies: Dramatic Order of Knights Khorassan, Junior Order of Princes of Syracuse, Order of Pythian Sisters.

LEAGUE OF WOMEN VOTERS OF THE U. S.: Founded in 1920 upon ratification of 19th Amendment to inform the electorate and increase citizen participation in government. Annual expenditure: about \$1,300,000.

LIONS CLUBS, INTERNATIONAL ASSOCIATION OF: Founded 1917. Purpose is to recognize community needs and develop means of meeting them. World's largest service club organization.

NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE: Organized 1909. It seeks equal citizenship rights for Negroes through legal action, legislation and education.

NATIONAL FOUNDATION (formerly National Foundation for Infantile Paralysis, Inc.): Founded 1938 by F. D. Roosevelt. Funds are raised by annual "March of Dimes" in January. Financed research resulting in development of Salk vaccine. Program includes arthritis, birth

defects, virus diseases, and disorders of central nervous system, as well as polio.

NATIONAL GEOGRAPHIC SOCIETY: Founded 1888. Purpose is to increase and diffuse geographic knowledge. Publishes monthly *National Geographic Magazine* and weekly *Geographic School Bulletins*.

ODD FELLOWS, INDEPENDENT ORDER OF: Introduced into U. S. in 1819. Purpose is to promote social relations and to provide benefits for members.

ROCKEFELLER FOUNDATION: Founded 1913 to promote well-being of mankind throughout world; makes grants to agencies in fields of medical education and public health, biological and medical research, agriculture, social sciences and humanities. Principal Fund (Dec. 31, 1958): \$578,661,640, market value.

ROTARY INTERNATIONAL: Founded 1905. Purpose is to foster the ideal of service in business and community life and promote international understanding.

RUSSELL SAGE FOUNDATION: Founded 1907 by Mrs. Russell Sage to improve social and living conditions in U. S. Program emphasizes utilization of social sciences in professional practice. Assets (Sept. 1958): \$24,400,000.

SLOAN FOUNDATION, ALFRED P.: Founded 1934 by Alfred P. Sloan, Jr. Purpose is to increase and spread economic knowledge and promote basic research in science and other subjects. Assets (Dec. 1958): \$175,553,000.

TWENTIETH CENTURY FUND: Founded 1919 by Edward A. Filene to promote research and public education on economic and social problems. Assets (Dec. 31, 1958): \$17,552,440.

YOUNG MEN'S CHRISTIAN ASSOCIATION: Founded 1844. Purpose is to improve spiritual, social, recreational and physical lives of young people. Endowment (1958): \$72,264,000.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION OF THE U.S.A.: Founded 1858 to advance physical, social, intellectual and spiritual interests of young women and to build fellowship of women devoted to pursuit of Christian ideals.

Longest Broadway Runs

As of Aug. 1959. Source: *Variety*.

1. Life with Father	3,224
2. Tobacco Road	3,182
3. Abie's Irish Rose	2,327
4. Oklahoma!	2,248
5. South Pacific	1,925
6. Harvey	1,775
7. Born Yesterday	1,642
8. The Voice of the Turtle	1,557
9. My Fair Lady	1,446†
10. Arsenic and Old Lace	1,444
11. Helzapoppin	1,404

Top Grossing Films*

As of Jan. 7, 1959. Source: *Variety*.

1. Gone With the Wind	\$33,500,000
2. The Ten Commandments ..	32,000,000
3. Around World in 80 Days ..	17,600,000
4. The Robe	17,500,000
5. Bridge on the River Kwai ..	13,000,000
6. Greatest Show on Earth ..	12,800,000
7. From Here to Eternity	12,500,000
8. This is Cinerama	12,500,000
9. White Christmas	12,000,000
10. Peyton Place	12,000,000
11. Giant	12,000,000

* Figures are rentals collected by film distributors from exhibitors in U.S. and Canada. † As of Sept. 1, 1959.

THE UNITED NATIONS



Its Major Cases and Actions

IRAN

Iran presented the first case before the Security Council on Jan. 19, 1946, demanding an end to Russian "interference" in Azerbaijan province, which Russia had brought under its control through a puppet government. Iran also demanded that Russia keep her promise to withdraw all occupation troops by Mar. 2. The Council kept the matter on the agenda. Russia withdrew her troops May 6.

GREECE

On Dec. 3, 1946, Greece complained to the Security Council that Communist-led rebels in northern Greece were being aided by Albania, Bulgaria and Yugoslavia. The Council named an investigating committee, which reported May 23, 1947, that those 3 nations were guilty. A Russian veto of July 29 prevented the Council's acceptance of the report. In Sept. 1948, the U. N. Balkan Commission, which continued to watch developments, again condemned the 3 nations for continuing aid to the Greek rebels. However, 3 months previously, on June 28, 1948, Marshal Tito's Yugoslavia had broken with Moscow. Thereafter, the Greek Communist-led rebellion faded out.

ATOMIC ENERGY CONTROL

On Dec. 31, 1946, a U. N. commission of 11 nations recommended the "Baruch plan" sponsored by the U. S. for international control and inspection. Only Russia dissented. In June 1947, she submitted a vastly different control plan, limiting international inspection so greatly that the secret making of atomic bombs could not be discovered. On May 17, 1948, the U. N. commission voted (9-2) to suspend work on international atomic control, blaming Russia for the deadlock. A Russian veto of June 22 prevented the Security Council from approving the majority-approved control plan. The topic then went to the General Assembly, which, on Nov. 4, 1948, adopted (40-6) the U. S.-sponsored plan; but nothing could be done to put it into effect because of Soviet-bloc opposition.

PALESTINE

A General Assembly special session met Apr. 28, 1947, at the request of Great Britain to consider Palestine. An 11-nation investigating committee recommended Aug. 31 that Britain give up control and that an Arab and a Jewish state be established. This partition plan was approved by the

Assembly in Nov. 1947, but proved impossible to enforce.

Britain ceased to govern Palestine on May 14, 1948. Israel proclaimed her independence and was attacked by 5 neighboring Arab nations. The U. N. made 6 appeals to both sides to stop the war; the last brought about a truce from June 11 to July 9. Intermittent fighting took place thereafter. Count Folke Bernadotte, the U. N. mediator, was murdered Sept. 17 near Jerusalem. He was succeeded by Dr. Ralph J. Bunche.

Israel signed an armistice with Egypt on Feb. 24, 1949, and with Jordan on Apr. 3. On May 11, the U. N. voted (37-12) to admit Israel as the 59th member.

INDONESIA

On July 30, 1947, Australia called the Security Council's attention to the fighting between the Netherlands and the Indonesian Republic. The Council, on Aug. 1, ordered both sides to cease hostilities. A Good Offices Commission was sent to Indonesia, and it effected a truce Jan. 17, 1948. In Dec. 1948, the Dutch attacked Jakarta, then the Indonesian capital, and the Council again issued a cease-fire order. Dutch troops were withdrawn from around Jakarta in July 1949. Indonesia thereafter peacefully achieved independence from the Netherlands.

INDIA-PAKISTAN

On Jan. 2, 1948, India appealed to the U. N. to stop alleged aggression by Pakistan. Fighting had broken out over which nation should control the province of Kashmir. The Security Council sent a commission, which proposed that Kashmir's future be determined by a plebiscite. The Council agreed on Apr. 21, but both sides raised objections. Early in 1949, the U. N. commission succeeded in obtaining a truce; and, on Mar. 14, 1950, the Council substituted a mediator, who was to seek demilitarization of the areas of Kashmir held by India and Pakistan and to try for a plebiscite. Two mediators failed.

RUSSIAN BOYCOTT

Soviet Delegate Malik walked out of the Security Council on Jan. 13, 1950, because it had refused (6-3) Russia's demand that Nationalist China be replaced in the U. N. by Communist China. The boycott ended on Aug. 1. Again the Council voted (8-3) to refuse membership to Communist China.

KOREA

Russia occupied the northern half of Korea after World War II, and the U. S. occupied the southern half below the 38th parallel. The understanding was that the occupying powers would set up an independent republic to govern the entire country. Russia refused to co-operate. The U. S. then referred the problem to the U. N., and the General Assembly voted Nov. 5, 1947, to send a commission to Korea to set up a free government. Russia, however, boycotted the commission and refused to allow it to enter North Korea. The commission therefore supervised free elections in South Korea and assisted in setting up the Republic of Korea with its capital at Seoul.

HUNGARY

Sparked by student demonstrations, street riots in Hungary in Oct. 1956, took on the proportions of rebellion. The Communist government called for Soviet help, and Russian tanks rolled into Budapest on Oct. 24. The Communists sought to appease the rebellious people by putting in as Premier a man, Imre Nagy, who had been ousted from the party as a "Titoist."

Nagy promised to throw off Russian shackles, and by Nov. 1, Russian tanks and troops had withdrawn from Budapest. On Nov. 4, however, the Russian tanks returned in force, shooting freely and killing civilians. The Russians set up a new puppet government headed by János Kadar.

The General Assembly on Nov. 4, in a special session, called on Russia to get its troops out of Hungary "without delay."

In the ensuing 6 weeks, the General Assembly passed 4 more resolutions about the Soviet crushing of Hungary.

One of the resolutions (Dec. 12, 1956) was an outright condemnation of Russia for "violation of the Charter by the U.S.S.R. in depriving Hungary of its liberty and independence." The vote was 55 to 8, which constituted a world-wide indictment.

The General Assembly decided in January 1957 to name a five-man committee to investigate from outside Hungary. On it were representatives of Denmark, Tunisia, Uruguay, Ceylon and Australia.

The committee heard testimony from 111 Hungarians, mainly refugees, in Europe and America. It reported unanimously on June 20, 1957, that the Hungarian uprising had been a spontaneous revolt of the people and that the crushing of the revolt by Soviet Russian troops had cost between 2,500 and 3,000 lives.

Meanwhile, people had begun fleeing from Communist Hungary on a mass scale

almost unprecedented. By the end of April 1957, some 175,000 Hungarians had sought asylum in Austria.

SUEZ

On Oct. 29, 1956, Israeli armed forces launched a major attack into the Gaza Strip and into Egypt's Sinai Desert territory.

An emergency special session of the U. N. General Assembly adopted on the night of Nov. 1-2, by a vote of 64 in favor, 5 against, 6 abstentions, a United States resolution calling upon all parties involved in hostilities in the area to agree to an immediate cease-fire. By that time, Britain and France were involved in the fighting.

Heeding the General Assembly call, Britain and France announced on Nov. 3 that they would stop military action.

By direction of the General Assembly, a United Nations Emergency Force was established to keep the peace. The first units landed at Ismailia, midway point on the Suez Canal, on Nov. 11, 1956.

On Feb. 21, Israel agreed to pull out its last troops if the U. N. Emergency Force stationed peace-keeping troops on the Aqaba Gulf and in the Gaza Strip. The U. N. Emergency Force troops were so stationed, and they became the first uniformed peace-preserving unit in the history of the U. N.

The nations which contributed troops were Brazil, Canada, Colombia, Denmark, Finland, India, Norway, Sweden and Yugoslavia.

LEBANON

In July, 1958, the United States responded to a plea for help from the little country of Lebanon at the eastern end of the Mediterranean, which had been in the throes of insurrection allegedly aided from its neighbor Syria, lately affiliated with Egypt in the new United Arab Republic. At Lebanon's request, U. S. Marines were landed there. Almost simultaneously, nearby Jordan requested and received British troops to safeguard the pro-West regime.

The U. N. already had a team of about 130 observers in Lebanon. In the Security Council, the Soviet Union now cast its 84th and 85th vetoes to kill resolutions (supported by the West) designed to strengthen U. N. forces in the Mideast.

The General Assembly was summoned into a rare emergency session which opened Aug. 8. A unanimous resolution directed Secretary-General Dag Hammarskjöld to go to the Middle East and see what arrangements could be made to restore stability and facilitate withdrawal of U. S. and British troops.

The 82 Members of the United Nations, 1959

Country	Signed U. N. Decla- ration ¹	Joined U. N. Organi- zation ²	League of Nations ³	Country	Signed U. N. Decla- ration ¹	Joined U. N. Organi- zation ²	League of Nations ³
Afghanistan.....	....	1946	1934-46	Italy.....	....	1955	1920-39
Albania.....	....	1955	1920-46	Japan.....	....	1956	1920-35
Argentina.....	....	1945	1920-46	Jordan.....	....	1955	.....
Australia.....	1942	1945	1920-46	Laos.....	....	1955	.....
Austria.....	....	1955	1920-40	Lebanon.....	1945	1945	.....
Belgium.....	1942	1945	1920-46	Liberia.....	1944	1945	1920-46
Bolivia.....	1943	1945	1920-46	Libya.....	....	1955	.....
Brazil.....	1943	1945	1920-28	Luxemburg.....	1942	1945	1920-46
Bulgaria.....	....	1955	1920-46	Malaya, Federation of.....	....	1957	.....
Burma.....	....	1948	.....	Mexico.....	1942	1945	1931-46
Byelorussian S.S.R. ⁴	....	1945	.....	Morocco.....	....	1956	.....
Cambodia.....	....	1955	.....	Nepal.....	....	1955	.....
Canada.....	1942	1945	1920-46	Netherlands.....	1942	1945	1920-46
Ceylon.....	....	1955	.....	New Zealand.....	1942	1945	1920-46
Chile.....	1945	1945	1920-40	Nicaragua.....	1942	1945	1920-38
China.....	1942	1945	1920-46	Norway.....	1942	1945	1920-46
Colombia.....	1943	1945	1920-46	Pakistan.....	....	1947	.....
Costa Rica.....	1942	1945	1920-26	Panama.....	1942	1945	1920-46
Cuba.....	1942	1945	1920-46	Paraguay.....	1945	1945	1920-37
Czechoslovakia.....	1942	1945	1920-46	Peru.....	1945	1945	1920-41
Denmark ⁵.....	....	1945	1920-46	Philippines.....	1942	1945	.....
Dominican Republic.....	1942	1945	1924-46	Poland ⁶	1942	1945	1920-46
Ecuador.....	1945	1945	1934-46	Portugal.....	....	1955	1920-46
El Salvador.....	1942	1945	1920-39	Romania.....	....	1955	1920-42
Ethiopia.....	1942	1945	1923-46	Saudi Arabia.....	1945	1945	.....
Finland.....	....	1955	1920-46	Spain.....	....	1955	1920-41
France.....	1944	1945	1920-46	Sudan.....	....	1956	.....
Ghana.....	....	1957	.....	Sweden.....	....	1946	1920-46
Greece.....	1942	1945	1920-46	Thailand (formerly Siam).....	....	1946	1920-46
Guatemala.....	1942	1945	1920-38	Tunisia.....	....	1956	.....
Guinea, Republic of.....	....	1958	.....	Turkey.....	1945	1945	1932-46
Haiti.....	1942	1945	1920-44	Ukrainian S.S.R. ⁴.....	....	1945	.....
Honduras.....	1942	1945	1920-38	Union of South Africa.....	1942	1945	1920-46
Hungary.....	....	1955	1922-41	U.S.S.R. ⁷	1942	1945	1934-39
Iceland.....	....	1946	.....	United Arab Republic ⁷	1945	1945	(⁸)
India.....	1942	1945	1920-46	United Kingdom.....	1942	1945	1920-46
Indonesia.....	....	1950	.....	United States.....	1942	1945	.....
Iran.....	1943	1945	1920-46	Uruguay.....	1945	1945	1920-46
Iraq.....	1943	1945	1932-46	Venezuela.....	1945	1945	1920-40
Ireland.....	....	1955	1923-46	Yemen.....	....	1947	.....
Israel.....	....	1949	.....	Yugoslavia.....	1942	1945	1920-46

¹ Declaration of United Nations was originally signed by 26 nations in Washington, D. C., on Jan. 1, 1942; 21 states later adhered to Declaration. ² U. N. officially came into existence Oct. 24, 1945. ³ League was formally dissolved Apr. 18, 1946. Nations withdrawing before that time did so voluntarily, except U.S.S.R., which was expelled. Other members of League were: Estonia (1921-46), Germany (1926-35), Latvia (1921-46), Lithuania (1921-46), Switzerland (1920-46). ⁴ Admission as separate nation approved at San Francisco Conference. ⁵ Invited to attend San Francisco Conference June 5, 1945, after its liberation. ⁶ Not represented at San Francisco Conference but subsequently signed Charter as original member. ⁷ Formed by union in 1958 of Egypt and Syria; both signed U. N. Declaration and joined U. N. Organization in 1945. ⁸ Egypt was a member of League (1937-46); Syria was not a member.

United Nations Headquarters

The first regular session of the General Assembly held at Central Hall, Westminster, London, voted that Interim Headquarters of the Organization should be located in New York. In August 1946, an Interim Headquarters was set up at Lake Success on Long Island, in a part of the Sperry Gyroscope Co.'s plant. The New York City building at Flushing Meadow, site of the 1939 World's Fair, was converted for the use of the General Assembly. The search for a permanent home ended in December 1946, when the General Assembly accepted an offer from John

D. Rockefeller, Jr., of \$8,500,000 for the purchase of the present Headquarters site—an 18-acre tract alongside Manhattan's East River. The U. S. Government loaned the U. N. \$65,000,000 interest free, which is being repaid in annual installments.

Architectural plans drawn up by an international Board of Design were approved by the Assembly, and construction began in September 1948. By mid-1950, the 39-story Secretariat Building was ready for occupancy, and in the spring of 1951 "United Nations, New York" became the Organization's permanent address.

Principal Organs of the United Nations

(For functions, see Charter, pp. 542-54. For officers of Secretariat and member nations of councils, see pp. 539-40.)

SECRETARIAT

Secretary-General

Dag Hammarskjöld, of Sweden, Apr. 10, 1953, to the present.

Former Secretary-General

Trygve Lie, of Norway, Feb. 1, 1946, to Apr. 10, 1953.

GENERAL ASSEMBLY

The General Assembly is composed of all member states. It does most of its work in committees, of which there are 4 types: main, procedural, standing and ad hoc.

Main Committees

First Committee (Political and Security, including the regulation of armaments).
Special Political Committee.

Second Committee (Economic and Financial).

Third Committee (Social, Humanitarian and Cultural).

Fourth Committee (Trusteeship, including Non-Self-Governing Territories).

Fifth Committee (Administrative and Budgetary).

Sixth Committee (Legal).

Presidents of the General Assembly

Paul-Henri Spaak, of Belgium, 1946, First Session.

Oswaldo Aranha, of Brazil, 1947, First Special Session and Second Regular Session.

Dr. José Arce, of Argentina, 1948, Second Special Session.

Herbert V. Evatt, of Australia, 1948, Third Session.

Carlos P. Romulo, of the Philippines, 1949, Fourth Session.

Nasrollah Entezam, of Iran, 1950, Fifth Session.

Luis Padilla Nervo, of Mexico, 1951, Sixth Session.

Lester B. Pearson, of Canada, 1952, Seventh Session.

Mrs. Vijaya Lakshmi Pandit, of India, 1953, Eighth Session.

Eelco N. van Kleffens, of the Netherlands, 1954, Ninth Session.

José Maza, of Chile, 1955, Tenth Session.

Rudecindo Ortega, of Chile, Nov., 1956, First and Second Emergency Special Sessions.

Prince Wan Waithayakon, of Thailand, 1956-57, Eleventh Session.

Sir Leslie Munro, of New Zealand, 1957-58, Twelfth Session and Third Emergency Special Session.

Charles Malik, of Lebanon, 1958, Thirteenth Session.

SECURITY COUNCIL

The Security Council is composed of 5 permanent members—China, France, the

U.S.S.R., the United Kingdom and the U. S. There are 6 nonpermanent members serving 2-year terms.

The Military Staff Committee is composed of the Chiefs of Staff of the 5 permanent members or their representatives; the Disarmament Commission, established by the General Assembly under the Security Council, had the following membership during 1958: Argentina, Australia, Belgium, Brazil, Burma, Canada, China, Colombia, Czechoslovakia, France, India, Iraq, Italy, Japan, Mexico, Norway, Panama, Poland, Sweden, Tunisia, the U.S.S.R., the United Arab Republic, the United Kingdom, the U. S. and Yugoslavia.

At its 13th session in 1958, the General Assembly decided that the Disarmament Commission will, for 1959 and on an ad hoc basis, consist of all U. N. members.

ECONOMIC AND SOCIAL COUNCIL

The Economic and Social Council is composed of 18 nonpermanent members serving 3-year terms.

Functional Commissions

Statistical Commission.

Population Commission.

Social Commission.

Commission on Human Rights.

Commission on the Status of Women.

Commission on Narcotic Drugs.

Commission on International Commodity Trade.

Regional Economic Commissions

Economic Commission for Europe.

Economic Commission for Asia and the Far East.

Economic Commission for Latin America.

Economic Commission for Africa.

TRUSTEESHIP COUNCIL

The Trusteeship Council is composed of 14 members: seven members—Australia, Belgium, France, Italy, New Zealand, the United Kingdom, and the U. S.—which administer trust territories; China and the U.S.S.R., other permanent members of the Security Council which do not administer trust territories; and 5 other members elected by the General Assembly serving 3-year terms. This arrangement ensures that the total number of Council members is equally divided between those U. N. members which administer trust territories and those which do not.

As of 1959, Trusteeship Agreements concerned the following territories (the Administering Authority in each case is in italics):

Nauru—*Australia (on behalf of Australia, New Zealand and the United Kingdom).*

New Guinea—*Australia.*

Ruanda-Urundi—*Belgium.*

Cameroons, Togoland—*France.*

Somalland—*Italy.*

Western Samoa—*New Zealand.*

Cameroons, Tanganyika—*United Kingdom.*

The Territory of the Pacific Islands—composed of the former Japanese-mandated islands of the Marshalls, Marianas (with the exception of Guam) and Carolines—is a strategic Trust Territory administered by the U. S.

The General Assembly decided at its Fourth Session in 1949 that former Italian Somalland was to be placed under the Trusteeship System for ten years. Italy became the Administering Authority in 1950.

Three trust territories will become independent in 1960: the French Cameroons, Jan. 1; French Togoland, Apr. 27; and Italian Somalland, Dec. 2. Plebiscites will be held in the British Cameroons in 1959-60 to determine its future, and Western Samoan independence has been set tentatively for the end of 1961. British Togoland, a former trust territory, became independent Mar. 7, 1957, joining the Gold Coast, a former British colony, to become the new state of Ghana.

INTL. COURT OF JUSTICE

(The Court is composed of 15* judges, who serve for a 9-year term and may be re-elected. Expiration dates of terms are shown in parentheses. All terms expire February 5 of the year designated. The seat of the Court is The Hague, Netherlands.)

President: Helge Klaestad, Norway (1961)

Vice President: Muhammad Zafrulla Khan, Pakistan (1961)

E. C. Armand-Ugón, Uruguay (1961)

Abdel Hamid Badawi, U.A.R. (1967)

Jules Basdevant, France (1964)

Roberto Córdova, Mexico (1964)

Green H. Hackworth, U. S. (1961)

F. I. Kojevnikov, U.S.S.R. (1961)

Hersch Lauterpacht, U. K. (1964)

L. M. Moreno Quintana, Argentina (1964)

Sir Percy Spender, Australia (1967)

Jean Spiropoulos, Greece (1967)

V. K. Wellington Koo, China (1967)

Bohdan Winarski, Poland (1967)

* One judge died in 1958.

Agencies of the United Nations

International Atomic Energy Agency (IAEA)

Established: Statute for IAEA, approved on October 26, 1956 at a conference held at U. N. Headquarters, New York, came into force on July 29, 1957. The Agency, while not a specialized agency, is under the aegis of the U. N.

Purposes: To promote the peaceful uses of atomic energy, and to ensure that as-

sistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose.

Headquarters: Vienna, Austria.

Specialized Agencies

International Labour Organisation (ILO)

Established: Apr. 11, 1919, when constitution was adopted as Part XIII of Treaty of Versailles.

Purposes: To contribute to establishment of lasting peace by promoting social justice; to improve, through international action, labor conditions and living standards; to promote economic and social stability.

Headquarters: Geneva, Switzerland.

Food and Agriculture Organization of the United Nations (FAO)

Established: Oct. 16, 1945, when constitution became effective.

Purposes: To raise nutrition levels and living standards; to secure improvements in production and distribution of food and agricultural products.

Headquarters: Viale delle Terme Di Caracalla, Rome, Italy.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

Established: Nov. 4, 1946, when 20th signatory to constitution deposited instrument of acceptance with government of United Kingdom.

Purposes: To promote collaboration among nations through education, science and culture in order to further justice, rule of law and human rights and freedoms without distinction of race, sex, language or religion.

Headquarters: 19 Ave. Kléber, Paris 16, France.

World Health Organization (WHO)

Established: Apr. 7, 1948, when 26 members of the U. N. had accepted its constitution adopted July 22, 1946, by International Health Conference in New York City.

Purposes: To aid attainment by all peoples of the world of highest possible level of health.

Headquarters: Palais des Nations, Geneva, Switzerland.

International Bank for Reconstruction and Development (Bank)

Established: Dec. 27, 1945, when Articles of Agreement drawn up at Bretton Woods Conference in July, 1944, came into force. Began operations June 25, 1946.

Purposes: To assist in reconstruction and development of economies of members by making loans directly and promoting private foreign investment; to promote balanced growth of international trade.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Finance Corporation (IFC)

Established: Charter of IFC came into force on July 20, 1956. Although IFC is affiliated with the International Bank, it is a separate legal entity and its funds are entirely separate from those of the Bank. However, membership in the Corporation is open only to Bank members.

Purposes: Its objective is to further economic development by encouraging the growth of productive private enterprise in its member countries, particularly in the less developed areas. It is empowered to invest in productive private enterprises in association with private investors, and without government guarantee of repayment in cases where sufficient private capital is not available on reasonable terms; and to serve as a clearing house to bring together investment opportunities, private capital, both foreign and domestic, and experienced management.

Headquarters: 1818 H St., NW, Washington, D. C.

International Monetary Fund (Fund)

Established: Dec. 27, 1945, when Articles of Agreement drawn up at Bretton Woods Conference in July 1944 came into force. Fund began operations on March 1, 1947.

Purposes: To promote international monetary co-operation and expansion of international trade; to promote exchange stability; to assist in establishment of multilateral system of payments in respect of current transactions between members.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Trade Organization (ITO)

General Agreement on Tariffs and Trade (GATT)

Principal Officers of the Secretariat as of September 1959

Andrew W. Cordier (U. S.), Executive Assistant to the Secretary-General.

Constantin A. Stavropoulos (Greece), Legal Counsel.

Bruce R. Turner (New Zealand), Controller. W. A. B. Hamilton (U. K.), Director of Personnel.

Ralph J. Bunche (U. S.), Under-Secretary for Special Political Affairs.

C. V. Narasimhan (India), Under-Secretary for Special Political Affairs.

Anatoly Dobrynin (U.S.S.R.), Under-Secretary for Political and Security Council Affairs.

Philippe de Seynes (France), Under-Secretary for Economic and Social Affairs.

Roberto M. Heurtematte (Panamá), Commissioner for Technical Assistance.

Paul Hoffman (U. S.), Managing Director of the U. N. Special Fund.

Sakari Tuomioja (Finland), Executive Secretary, Economic Commission for Europe.

U Nyun (Burma), Executive Secretary, Economic Commission for Asia and the Far East.

Established: Although establishment of ITO and the bringing into operation of the Havana Charter, on which it was to be based, have not taken place, one of the main objectives of that Charter has been embodied in an international commercial treaty, known as the General Agreement on Tariffs and Trade (GATT). Provision has been made for a permanent Organization for Trade Cooperation (OTC) to administer GATT and to come into being when it has been accepted by countries which account for a high proportion of world trade.

Inter-Governmental Maritime Consultative Organization (IMCO)

Established: Convention establishing IMCO came into existence on March 17, 1958 when 21 nations, of which 7 each had a total tonnage of at least one million gross tons of shipping, became parties to the convention drawn up by U. N. Maritime Conference at Geneva, Feb. 19 to Mar. 6, 1948. Organization was completed Jan. 19, 1959, when IMCO ended its first assembly session, held in London, and established its secretariat and work program.

Purposes: To promote co-operation among governments in technical problems of international shipping and to encourage removal of discriminatory action by governments and of unfair restrictive practices by shipping concerns.

Headquarters: London.

Other Agencies are: Int'l Civil Aviation Org., Universal Postal Union, Int'l Telecommunication Union and World Meteorological Org.

Raúl Prebisch (Argentina), Executive Secretary, Economic Commission for Latin America.

Mekki Abbas (Sudan), Executive Secretary, Economic Commission for Africa.

Dragoslav Protitch (Yugoslavia), Under-Secretary for Trusteeship and Information from Non-Self-Governing Territories.

Alfred G. Katzin (Union of South Africa), Acting Head, Office of Public Information.

Hugh L. Keenleyside (Canada), Under-Secretary, Office for Public Administration.

Victor A. Hoo (China), Under-Secretary for Conference Services.

David B. Vaughan (U. S.), Director of General Services.

Maurice Pate (U. S.), Executive Director of the U. N. Children's Fund (UNICEF).

David Owen (U. K.), Executive Chairman of the Technical Assistance Board.

P. P. Spinelli (Italy), Director of the U. N. European Office in Geneva.

Auguste R. Lindt (Switzerland), U. N. High Commissioner for Refugees (UNHCR).

John H. Davis (U. S.), Director, U. N. Relief and Works Agency for Palestine Refugees in the Near East (UNRWA).

Security Council

Representatives (as of August 1959)

Argentina: Dr. Mario Amadeo.
 Canada: C. S. A. Ritchie.
 China: Dr. Tingfu F. Tsiang.
 France: Armand Berard.
 Italy: Egidio Ortona.
 Japan: Dr. Koto Matsudaira.
 Panamá: Dr. Jorge Illueca.
 Tunisia: Mongi Slim.
 U.S.S.R.: Arkady A. Sobolev.
 United Kingdom: Sir Pierson Dixon.
 United States: Henry Cabot Lodge.

Economic and Social Council

Representatives (28th session, June-July 1959)

Afghanistan: Abdul Hal Aziz.
 Bulgaria: Prof. E. Kamenov.
 Chile: Fernando Garcia Oldini.
 China: Cheng Paonan.
 Costa Rica: Dr. Gonsalo Ortiz.
 Finland: Ralph Enckell.
 France: Roger Auboin.
 Mexico: Daniel Cosío Villegas.
 Netherlands: J. M. A. H. Luns.

Elected Member States Serving Terms on U. N. Councils

Security Council

Jan. 1946-Dec. 1946: Egypt; Mexico; Netherlands.
 Jan. 1946-Dec. 1947: Australia; Brazil; Poland.
 Jan. 1947-Dec. 1948: Belgium; Colombia; Syria.
 Jan. 1948-Dec. 1949: Argentina; Canada; Ukrainian S.S.R.
 Jan. 1949-Dec. 1950: Cuba; Egypt; Norway.
 Jan. 1950-Dec. 1951: Ecuador; India; Yugoslavia.
 Jan. 1951-Dec. 1952: Brazil; Netherlands; Turkey.
 Jan. 1952-Dec. 1953: Chile; Greece; Pakistan.
 Jan. 1953-Dec. 1954: Colombia; Denmark; Lebanon.
 Jan. 1954-Dec. 1955: Brazil; New Zealand; Turkey.
 Jan. 1955-Dec. 1956: Belgium, Iran, Peru.
 Jan. 1956-Dec. 1957: Australia; Cuba; Yugoslavia. Yugoslavia resigned at the end of 1956 and was replaced by the Philippines.
 Jan. 1957-Dec. 1958: Colombia; Iraq; Sweden.
 Jan. 1958-Dec. 1959: Canada; Japan; Panamá.
 Jan. 1959-Dec. 1960: Argentina; Italy; Tunisia.

Economic and Social Council

Jan. 1946-Dec. 1946: Colombia; Greece; Lebanon; Ukrainian S.S.R.; U. S.; Yugoslavia.
 Jan. 1946-Dec. 1947: Cuba; Czechoslovakia; India; Norway; United Kingdom; U.S.S.R.
 Jan. 1946-Dec. 1948: Belgium (resigned 1947 and replaced by Netherlands); Canada; Chile; China; France; Peru.
 Jan. 1947-Dec. 1949: Byelorussian S.S.R.; Lebanon; New Zealand; Turkey; U. S.; Venezuela.
 Jan. 1948-Dec. 1950: Australia; Brazil; Denmark; Poland; United Kingdom; U.S.S.R.
 Jan. 1949-Dec. 1951: Belgium; Chile; China; France; India; Peru.

New Zealand: Foss Shanahan.
 Pakistan: G. A. Faruqi.
 Poland: Jerzy Michalowski.
 Spain: Don José Félix de Lequerica.
 Sudan: Abel Rahim Mirghani.
 U.S.S.R.: N. Firyubin.
 United Kingdom: W. D. Ormsby-Gore.
 United States: Christopher H. Phillips.
 Venezuela: Dr. Alfredo Tarre Muriz.

Trusteeship Council

Representatives (24th session, June-August 1959)

Australia: J. D. L. Hood.
 Belgium: Alfred Claeys Bouuaert.
 Burma: U Thant.
 China: Chiping H. C. Kiang.
 France: Jacques Kosciuszko-Morizet.
 Haiti: Max H. Dorsinville.
 India: C. S. Jha.
 Italy: Girolamo Vitelli.
 New Zealand: A. D. McIntosh and Foss Shanahan.
 Paraguay: Pacifico Montero de Vargas.
 U.S.S.R.: Valentin I. Oberemko.
 United Arab Republic: Omar Loutfi.
 United Kingdom: Sir Andrew Cohen.
 United States: Mason Sears.

Jan. 1950-Dec. 1952: Canada; Czechoslovakia; Iran; Mexico; Pakistan; U. S.
 Jan. 1951-Dec. 1953: Philippines; Poland; Sweden; United Kingdom; Uruguay; U.S.S.R.
 Jan. 1952-Dec. 1954: Argentina; Belgium; China; Cuba; Egypt; France.
 Jan. 1953-Dec. 1955: Australia; India; Turkey; U. S.; Venezuela; Yugoslavia.
 Jan. 1954-Dec. 1956: Czechoslovakia; Ecuador; Norway; Pakistan; United Kingdom; U.S.S.R.
 Jan. 1955-Dec. 1957: Argentina; China; Dominican Republic; Egypt; France; Netherlands.
 Jan. 1956-Dec. 1958: Brazil; Canada; Greece; Indonesia; U. S.; Yugoslavia.
 Jan. 1957-Dec. 1959: Finland; Mexico; Pakistan; Poland; U.S.S.R.; United Kingdom.
 Jan. 1958-Dec. 1960: Chile; China; Costa Rica; France; Netherlands; Sudan.
 Jan. 1959-Dec. 1961: Afghanistan; Bulgaria; New Zealand; Spain; U. S.; Venezuela.

Trusteeship Council

Jan. 1947-Dec. 1949: Iraq; Mexico.
 Jan. 1948-Dec. 1950: Costa Rica (resigned Sept. 1949 and replaced by Dominican Republic); Philippines.
 Jan. 1950-Dec. 1952: Argentina (resigned with effect of Jan. 1, 1952 and replaced by El Salvador); Iraq.
 Jan. 1951-Dec. 1953: Dominican Republic; Thailand.
 Jan. 1953-Dec. 1955: El Salvador; Syria.
 Jan. 1954-Dec. 1956: Haiti; India.
 Jan. 1956-Dec. 1958: Burma; Guatemala; Syria.
 Jan. 1957-Dec. 1959: Haiti; India.
 Jan. 1959-Dec. 1961: Burma; Paraguay; United Arab Republic.

Delegation Heads to the United Nations

Members Represented at Headquarters*

Afghanistan: Abdul Rahman Pazhwak.
 Albania: Reis Maille.
 Argentina: Dr. Mario Amadeo.
 Australia: James Pilmsoil.
 Austria: Dr. Franz Matsch.
 Belgium: Joseph Nisot.
 Bolivia: Prof. Marcial Tamayo.
 Brazil: Cyro de Freitas-Valle.
 Bulgaria: Dr. Peter G. Voutov.
 Burma: U Thant.
 Byelorussian S.S.R.: Feodosy N. Gryaznov.
 Cambodia: Nong Kimny.
 Canada: C. S. A. Ritchie.
 Ceylon: Sir Claude Corea.
 Chile: (Vacant).
 China: Dr. Tingfu F. Tsiang.
 Colombia: Dr. Alfonso Araujo.
 Costa Rica: Dr. Gonzalo Ortiz.
 Cuba: Dr. Manuel Bisbe.
 Czechoslovakia: Karel Kurka.
 Denmark: Aage Hesselund-Jensen.
 Dominican Rep.: Dr. Enrique de Marchena.
 Ecuador: José A. Correa.
 El Salvador: Dr. Miguel Rafael Urquía.
 Ethiopia: Ato Haddis Alemayehou.
 Finland: Ralph Enckell.
 France: Armand Berard.
 Ghana: Alex Quaison-Sackey.
 Greece: Christian X. Palamas.
 Guatemala: Dr. Alberto Herrarte.
 Guinea: Diallo Telli.
 Haiti: Max H. Dorsinville.
 Honduras: Carlos Adrian Perdomo.
 Hungary: Peter Mod.
 Iceland: Thor Thors.
 India: C. S. Jha.
 Indonesia: Ali Sastroamidjojo.
 Iran: (Vacant).
 Iraq: Adnan M. Pachachi (acting).
 Ireland: Frederick H. Boland.
 Israel: Yosef Tekoah.

Italy: Egidio Ortona.
 Japan: Dr. Koto Matsudaïra.
 Jordan: Abdul Monem Rifa'i.
 Laos: Oürot R. Souvannavong.
 Lebanon: Georges Hakim.
 Liberia: Charles T. O. King.
 Libya: Dr. Mohieddine Fekini.
 Luxembourg: Georges Heisbourg.
 Malaya: Dato Nik Ahmed Kamil.
 Mexico: Dr. Luis Padilla Nervo.
 Morocco: El Mehdi Ben Aboud.
 Nepal: Rishikesh Shaha.
 Netherlands: C. W. A. Schurmann.
 New Zealand: Foss Shanahan.
 Nicaragua: Dr. Guillermo Sevilla-Sacasa.
 Norway: Sivert A. Nielsen.
 Pakistan: Prince Aly Khan.
 Panamá: Col. Alejandro Remon.
 Paraguay: Dr. Pacifico Montero de Vargas.
 Peru: Carlos Mackehenie.
 Philippines: Francisco A. Delgado.
 Poland: Jerzy Michalowski.
 Portugal: Dr. Vasco Vieira Garin.
 Rumania: Mircea Malitza.
 Saudi Arabia: Ahmad Shukairy.
 Spain: Don José Felix de Lequerica.
 Sudan: Sayed Omar Abdel Hamid Adeel.
 Sweden: Mrs. Agda Rössel.
 Thailand: Prince Wan Waithayakon.
 Tunisia: Mongi Slim.
 Turkey: Seyfullah Esin.
 Ukrainian S.S.R.: Peter P. Udovichenko.
 Union of So. Africa: Bernardus G. Fourie.
 U.S.S.R.: Arkady A. Sobolev.
 United Arab Republic: Omar Loutfi.
 United Kingdom: Sir Pierson Dixon.
 United States: Henry Cabot Lodge.
 Uruguay: Prof. Enrique Rodriguez Fabregat.
 Venezuela: Dr. Carlos Sosa-Rodriguez.
 Yemen: Mohamed Kamil Abdul Rahim.
 Yugoslavia: Dobrovoje Vidic.

* Permanent representatives to U. N. as of August 1959. Not all nations maintain permanent missions.

U. S. Permanent Mission to U. N.

Henry Cabot Lodge; Ambassador Extraordinary and Plenipotentiary, Permanent Representative to U. N.
 James J. Wadsworth; Ambassador Extraordinary and Plenipotentiary, Deputy Representative to U. N.
 James W. Barco; Minister, Deputy Representative on Security Council, Counsellor of Mission.
 Christopher H. Phillips; Representative on Economic and Social Council.
 Norman Armour, Jr.; Principal Liaison Officer.
 John Bacon; Adviser, Trusteeship Affairs.
 Albert F. Bender, Jr.; Senior Adviser, Legal and International Organization Affairs.
 Francis W. Carpenter; Director, News Services.
 Charles D. Cook; Deputy Counsellor of Mis-

sion; Senior Adviser, Political and Security Affairs.

Hugh M. Adamson, Chief Administrative Officer.

U. S. Delegation to the 14th Session of the General Assembly

Representatives

Henry Cabot Lodge	Clement J. Zablocki
George Meany	Walter S. Robertson
James G. Fulton	

Alternate Representatives

Virgil N. Hancher	Erle Cooke, Jr.
Charles W. Anderson, Jr.	Mrs. Oswald B. Lord
	Harold Riegelman

The Secretary of State, Christian Herter, served as Senior Representative, *ex officio*, during his presence at the session. (Lodge served during Herter's absence.)

Security Council Vetoes

As of September 1959, 94 vetoes had occurred in the Security Council since the inception of the U. N. The U.S.S.R. had

cast 87 of them, France 4, the United Kingdom 2 and China 1. The United States had cast no vetoes.

CHARTER OF THE UNITED NATIONS

WE the peoples of the United Nations determined to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

To reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and

To establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

To promote social progress and better standards of life in larger freedom, and for these ends

To practice tolerance and live together in peace with one another as good neighbors, and

To unite our strength to maintain international peace and security, and

To insure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

To employ international machinery for the promotion of the economic and social advancement of all peoples, have resolved to combine our efforts to accomplish these aims.

Accordingly, our respective Governments, through representatives assembled in the city of San Francisco, who have exhibited their full powers found to be in good and due form, have agreed to the present Charter of the United Nations and do hereby establish an international organization to be known as the United Nations.

CHAPTER I

Purposes and Principles

Article 1

The purposes of the United Nations are:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;

3. To achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian

character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and

4. To be a center for harmonizing the actions of nations in the attainment of these common ends.

Article 2

The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles:

1. The Organization is based on the principle of the sovereign equality of all its Members.

2. All Members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.

3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.

4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

5. All Members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.

6. The Organization shall ensure that states which are not Members of the United Nations act in accordance with these Principles so far as may be necessary for the maintenance of international peace and security.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

CHAPTER II

Membership

Article 3

The original Members of the United Nations shall be the states which, having participated in the United Nations Conference on International Organization at San Francisco, or having previously signed

the Declaration by United Nations of January 1, 1942, sign the present Charter and ratify it in accordance with Article 110.

Article 4

1. Membership in the United Nations is open to all other peace-loving states which accept the obligations contained in the present Charter and, in the judgment of the Organization, are able and willing to carry out these obligations.

2. The admission of any such state to membership in the United Nations will be effected by a decision of the General Assembly upon the recommendation of the Security Council.

Article 5

A Member of the United Nations against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly upon the recommendation of the Security Council. The exercise of these rights and privileges may be restored by the Security Council.

Article 6

A Member of the United Nations which has persistently violated the Principles contained in the present Charter may be expelled from the Organization by the General Assembly upon the recommendation of the Security Council.

CHAPTER III

Organs

Article 7

1. There are established as the principal organs of the United Nations; a General Assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice, and a Secretariat.

2. Such subsidiary organs as may be found necessary may be established in accordance with the present Charter.

Article 8

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs.

CHAPTER IV

The General Assembly Composition

Article 9

1. The General Assembly shall consist of all the members of the United Nations.

2. Each Member shall have not more than five representatives in the General Assembly.

Functions and Powers

Article 10

The General Assembly may discuss any questions or any matters within the scope of the present Charter or relating to the powers and functions of any organs provided for in the present Charter, and, except as provided in Article 12, may make recommendations to the Members of the United Nations or to the Security Council or to both on any such questions or matters.

Article 11

1. The General Assembly may consider the general principles of cooperation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the Members or to the Security Council or to both.

2. The General Assembly may discuss any questions relating to the maintenance of international peace and security brought before it by any Member of the United Nations, or by the Security Council, or by a state which is not a Member of the United Nations, in accordance with Article 35, paragraph 2, and, except as provided in Article 12, may make recommendations with regard to any such question to the state or states concerned or to the Security Council or to both. Any such question on which action is necessary shall be referred to the Security Council by the General Assembly either before or after discussion.

3. The General Assembly may call the attention of the Security Council to situations which are likely to endanger international peace and security.

4. The powers of the General Assembly set forth in this Article shall not limit the general scope of Article 10.

Article 12

1. While the Security Council is exercising in respect of any dispute or situation the functions assigned to it in the present Charter, the General Assembly shall not make any recommendations with regard to that dispute or situation unless the Security Council so requests.

2. The Secretary-General, with the consent of the Security Council, shall notify the General Assembly at each session of any matters relative to the maintenance of international peace and security which are being dealt with by the Security Council and shall similarly notify the General Assembly, or the Members of the United Na-

tions if the General Assembly is not in session, immediately the Security Council ceases to deal with such matters.

Article 13

1. The General Assembly shall initiate studies and make recommendations for the purpose of:

(a) promoting international cooperation in the political field and encouraging the progressive development of international law and its codification;

(b) promoting international cooperation in the economic, social, cultural, educational, and health fields, and assisting in the realization of human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

2. The further responsibilities, functions and powers of the General Assembly with respect to matters mentioned in paragraph 1 (b) above are set forth in Chapters IX and X.

Article 14

Subject to the provisions of Article 12, the General Assembly may recommend measures for the peaceful adjustment of any situation, regardless of origin, which it deems likely to impair the general welfare or friendly relations among nations, including situations resulting from a violation of the provisions of the present Charter setting forth the Purposes and Principles of the United Nations.

Article 15

1. The General Assembly shall receive and consider annual and special reports from the Security Council; these reports shall include an account of the measures that the Security Council has decided upon or taken to maintain international peace and security.

2. The General Assembly shall receive and consider reports from the other organs of the United Nations.

Article 16

The General Assembly shall perform such functions with respect to the international trusteeship system as are assigned to it under Chapters XII and XIII, including the approval of the trusteeship agreements for areas not designated as strategic.

Article 17

1. The General Assembly shall consider and approve the budget of the Organization.

2. The expenses of the Organization shall be borne by the Members as apportioned by the General Assembly.

3. The General Assembly shall consider and approve any financial and budgetary arrangements with specialized agencies re-

ferred to in Article 57 and shall examine the administrative budgets of such specialized agencies with a view to making recommendations to the agencies concerned.

Voting

Article 18

1. Each member of the General Assembly shall have one vote.

2. Decisions of the General Assembly on important questions shall be made by a two-thirds majority of the members present and voting. These questions shall include: recommendations with respect to the maintenance of international peace and security, the election of the non-permanent members of the Security Council, the election of the members of the Economic and Social Council, the election of members of the Trusteeship Council in accordance with paragraph 1 (c) of Article 86, the admission of new Members to the United Nations, the suspension of the rights and privileges of membership, the expulsion of Members, questions relating to the operation of the trusteeship system, and budgetary questions.

3. Decisions on other questions, including the determination of additional categories of questions to be decided by a two-thirds majority, shall be made by a majority of the members present and voting.

Article 19

A Member of the United Nations which is in arrears in the payment of its financial contributions to the Organization shall have no vote in the General Assembly if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The General Assembly may, nevertheless, permit such a Member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the Member.

Procedure

Article 20

The General Assembly shall meet in regular annual sessions and in such special sessions as occasion may require. Special sessions shall be convoked by the Secretary-General at the request of the Security Council or of a majority of the Members of the United Nations.

Article 21

The General Assembly shall adopt its own rules of procedure. It shall elect its President for each session.

Article 22

The General Assembly may establish such subsidiary organs as it deems necessary for the performance of its functions.

CHAPTER V

The Security Council
Composition

Article 23

1. The Security Council shall consist of eleven Members of the United Nations. The Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America shall be permanent members of the Security Council. The General Assembly shall elect six other Members of the United Nations to be non-permanent members of the Security Council, due regard being specially paid, in the first instance to the contribution of members of the United Nations to the maintenance of international peace and security and to the other purposes of the Organization, and also to equitable geographical distribution.

2. The non-permanent members of the Security Council shall be elected for a term of two years. In the first election of the non-permanent members, however, three shall be chosen for a term of one year. A retiring member shall not be eligible for immediate re-election.

3. Each member of the Security Council shall have one representative.

Functions and Powers

Article 24

1. In order to insure prompt and effective action by the United Nations, its Members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf.

2. In discharging these duties the Security Council shall act in accordance with the Purposes and Principles of the United Nations. The specific powers granted to the Security Council for the discharge of these duties are laid down in Chapters VI, VII, VIII, and XII.

3. The Security Council shall submit annual and, when necessary, special reports to the General Assembly for its consideration.

Article 25

The Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.

Article 26

In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and eco-

nomic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee referred to in Article 47, plans to be submitted to the Members of the United Nations for the establishment of a system for the regulation of armaments.

Voting

Article 27

1. Each member of the Security Council shall have one vote.

2. Decisions of the Security Council on procedural matters shall be made by an affirmative vote of seven members.

3. Decisions of the Security Council on all other matters shall be made by an affirmative vote of seven members including the concurring votes of the permanent members; provided that, in decisions under Chapter VI, and under paragraph 3 of Article 52, a party to a dispute shall abstain from voting.

Procedure

Article 28

1. The Security Council shall be so organized as to be able to function continuously. Each member of the Security Council shall for this purpose be represented at all times at the seat of the Organization.

2. The Security Council shall hold periodic meetings at which each of its members may, if it so desires, be represented by a member of the government or by some other specially designated representative.

3. The Security Council may hold meetings at such places other than the seat of the Organization as in its judgment will best facilitate its work.

Article 29

The Security Council may establish such subsidiary organs as it deems necessary for the performance of its functions.

Article 30

The Security Council shall adopt its own rules of procedure, including the method of selecting its President.

Article 31

Any Member of the United Nations which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that Member are specially affected.

Article 32

Any Member of the United Nations which is not a member of the Security

Council or any state which is not a Member of the United Nations, if it is a party to a dispute under consideration by the Security Council, shall be invited to participate, without vote, in the discussion relating to the dispute. The Security Council shall lay down such conditions as it deems just for the participation of a state which is not a Member of the United Nations.

CHAPTER VI

Pacific Settlement of Disputes

Article 33

1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means.

Article 34

The Security Council may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.

Article 35

1. Any Member of the United Nations may bring any dispute, or any situation of the nature referred to in Article 34 to the attention of the Security Council or of the General Assembly.

2. A state which is not a Member of the United Nations may bring to the attention of the Security Council or of the General Assembly any dispute to which it is a party if it accepts in advance, for the purposes of the dispute, the obligations of pacific settlement provided in the present Charter.

3. The proceedings of the General Assembly in respect of matters brought to its attention under this Article will be subject to the provisions of Articles 11 and 12.

Article 36

1. The Security Council may, at any stage of a dispute of the nature referred to in Article 33 or of a situation of like nature, recommend appropriate procedures or methods of adjustment.

2. The Security Council should take into consideration any procedures for the settlement of the dispute which have already been adopted by the parties.

3. In making recommendations under this Article the Security Council should also take into consideration that legal disputes should as a general rule be referred by the parties to the International Court of Justice in accordance with the provisions of the Statute of the Court.

Article 37

1. Should the parties to a dispute of the nature referred to in Article 33 fail to settle it by the means indicated in that Article, they shall refer it to the Security Council.

2. If the Security Council deems that the continuance of the dispute is in fact likely to endanger the maintenance of international peace and security, it shall decide whether to take action under Article 36 or to recommend such terms of settlement as it may consider appropriate.

Article 38

Without prejudice to the provisions of Articles 33 to 37, the Security Council may, if all the parties to any dispute so request, make recommendations to the parties with a view to a pacific settlement of the dispute.

CHAPTER VII

Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression

Article 39

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

Article 40

In order to prevent an aggravation of the situation, the Security Council may, before making the recommendations or deciding upon the measures provided for in Article 39, call upon the parties concerned to comply with such provisional measures as it deems necessary or desirable. Such provisional measures shall be without prejudice to the rights, claims, or position of the parties concerned. The Security Council shall duly take account of failure to comply with such provisional measures.

Article 41

The Security Council may decide what measures not involving the use of armed force are to be employed to give effect.

to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.

Article 42

Should the Security Council consider that measures provided for in Article 41 would be inadequate or have proved to be inadequate, it may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations.

Article 43

1. All Members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

2. Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.

3. The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and Members or between the Security Council and groups of Members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes.

Article 44

When the Security Council has decided to use force it shall, before calling upon a Member not represented on it to provide armed forces in fulfillment of the obligations assumed under Article 43, invite that Member, if the Member so desires, to participate in the decisions of the Security Council concerning the employment of contingents of that Member's armed forces.

Article 45

In order to enable the United Nations to take urgent military measures, Members shall hold immediately available national air-force contingents for combined international enforcement action. The strength and degree of readiness of these contingents and plans for their combined action shall be determined, within the limits laid

down in the special agreement or agreements referred to in Article 43, by the Security Council with the assistance of the Military Staff Committee.

Article 46

Plans for the application of armed force shall be made by the Security Council with the assistance of the Military Staff Committee.

Article 47

1. There shall be established a Military Staff Committee to advise and assist the Security Council on all questions relating to the Security Council's military requirements for the maintenance of international peace and security, the employment and command of forces placed at its disposal, the regulation of armaments, and possible disarmament.

2. The Military Staff Committee shall consist of the Chiefs of Staff of the permanent members of the Security Council or their representatives. Any Member of the United Nations not permanently represented on the Committee shall be invited by the Committee to be associated with it when the efficient discharge of the Committee's responsibilities requires the participation of that Member in its work.

3. The Military Staff Committee shall be responsible under the Security Council for the strategic direction of any armed forces placed at the disposal of the Security Council. Questions relating to the command of such forces shall be worked out subsequently.

4. The Military Staff Committee, with the authorization of the Security Council and after consultation with appropriate regional agencies, may establish regional subcommittees.

Article 48

1. The action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the Members of the United Nations or by some of them, as the Security Council may determine.

2. Such decisions shall be carried out by the Members of the United Nations directly and through their action in the appropriate international agencies of which they are members.

Article 49

The Members of the United Nations shall join in affording mutual assistance in carrying out the measures decided upon by the Security Council.

Article 50

If, preventive or enforcement measures against any state are taken by the Security Council, any other state, whether a

Member of the United Nations or not, which finds itself confronted with special economic problems arising from the carrying out of those measures shall have the right to consult the Security Council with regard to a solution of those problems.

Article 51

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

CHAPTER VIII

Regional Arrangements

Article 52

1. Nothing in the present Charter precludes the existence of regional arrangements or agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action, provided that such arrangements or agencies and their activities are consistent with the Purposes and Principles of the United Nations.

2. The Members of the United Nations entering into such arrangements or constituting such agencies shall make every effort to achieve pacific settlement of local disputes through such regional arrangements or by such regional agencies before referring them to the Security Council.

3. The Security Council shall encourage the development of pacific settlement of local disputes through such regional arrangements or by such regional agencies either on the initiative of the states concerned or by reference from the Security Council.

4. This Article in no way impairs the application of Articles 34 and 35.

Article 53

1. The Security Council shall, where appropriate, utilize such regional arrangements or agencies for enforcement action under its authority. But no enforcement action shall be taken under regional arrangements or by regional agencies without the authorization of the Security Council, with the exception of measures against any enemy state, as defined in para-

graph 2 of this Article, provided for pursuant to Article 107 or in regional arrangements directed against renewal of aggressive policy on the part of any such state, until such time as the Organization may, on request of the Governments concerned, be charged with the responsibility for preventing further aggression by such a state.

2. The term enemy state as used in paragraph 1 of this Article applies to any state which during the Second World War has been an enemy of any signatory of the present Charter.

Article 54

The Security Council shall at all times be kept fully informed of activities undertaken or in contemplation under regional arrangements or by regional agencies for the maintenance of international peace and security.

CHAPTER IX

International Economic and Social Cooperation

Article 55

With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:

(a) higher standards of living, full employment, and conditions of economic and social progress and development;

(b) solutions of international economic, social, health, and related problems; and international cultural and educational cooperation; and

(c) universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

Article 56

All Members pledge themselves to take joint and separate action in cooperation with the Organization for the achievement of the purposes set forth in Article 55.

Article 57

1. The various specialized agencies, established by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

2. Such agencies thus brought into relationship with the United Nations are

hereinafter referred to as specialized agencies.

Article 58

The Organization shall make recommendations for the coordination of the policies and activities of the specialized agencies.

Article 59

The Organization shall, where appropriate, initiate negotiations among the states concerned for the creation of any new specialized agencies required for the accomplishment of the purposes set forth in Article 55.

Article 60

Responsibility for the discharge of the functions of the Organization set forth in this Chapter shall be vested in the General Assembly and, under the authority of the General Assembly, in the Economic and Social Council, which shall have for this purpose the powers set forth in Chapter X.

CHAPTER X

Economic and Social Council Composition

Article 61

1. The Economic and Social Council shall consist of eighteen Members of the United Nations elected by the General Assembly.

2. Subject to the provisions of paragraph 3, six members of the Economic and Social Council shall be elected each year for a term of three years. A retiring member shall be eligible for immediate re-election.

3. At the first election, eighteen members of the Economic and Social Council shall be chosen. The term of office of six members so chosen shall expire at the end of one year, and of six other members at the end of two years, in accordance with arrangements made by the General Assembly.

4. Each member of the Economic and Social Council shall have one representative.

Functions and Powers

Article 62

1. The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educational, health, and related matters and may make recommendations with respect to any such matters to the General Assembly, to the Members of the United Nations, and to the specialized agencies concerned.

2. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

3. It may prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.

4. It may call, in accordance with the rules prescribed by the United Nations, international conferences on matters falling within its competence.

Article 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may coordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the Members of the United Nations.

Article 64

1. The Economic and Social Council may take appropriate steps to obtain regular reports from the specialized agencies. It may make arrangements with the Members of the United Nations and with the specialized agencies to obtain reports on the steps taken to give effect to its own recommendations and to recommendations on matters falling within its competence made by the General Assembly.

2. It may communicate its observations on these reports to the General Assembly.

Article 65

The Economic and Social Council may furnish information to the Security Council and shall assist the Security Council upon its request.

Article 66

1. The Economic and Social Council shall perform such functions as fall within its competence in connection with the carrying out of the recommendations of the General Assembly.

2. It may, with the approval of the General Assembly, perform services at the request of Members of the United Nations and at the request of specialized agencies.

3. It shall perform such other functions as are specified elsewhere in the present Charter or as may be assigned to it by the General Assembly.

Voting

Article 67

1. Each member of the Economic and Social Council shall have one vote.

2. Decisions of the Economic and Social Council shall be made by a majority of the members present and voting.

Procedure

Article 68

The Economic and Social Council shall set up commissions in economic and social fields and for the promotion of human rights, and such other commissions as may be required for the performance of its functions.

Article 69

The Economic and Social Council shall invite any Member of the United Nations to participate, without vote, in its deliberations on any matter of particular concern to that Member.

Article 70

The Economic and Social Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

Article 71

The Economic and Social Council may make suitable arrangements for consultation with non-governmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations and, where appropriate, with national organizations after consultation with the Member of the United Nations concerned.

Article 72

1. The Economic and Social Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Economic and Social Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

CHAPTER XI

Declaration Regarding Non-Self-Governing Territories

Article 73

Members of the United Nations which have or assume responsibilities for the administration of territories whose peoples have not yet attained a full measure of self-government recognize the principle that the interests of the inhabitants of these territories are paramount, and ac-

cept as a sacred trust the obligation to promote to the utmost, within the system of international peace and security established by the present Charter, the well-being of the inhabitants of these territories, and, to this end:

(a) to ensure, with due respect for the culture of the peoples concerned, their political, economic, social, and educational advancement, their just treatment, and their protection against abuses;

(b) to develop self-government, to take due account of the political aspirations of the peoples, and to assist them in the progressive development of their free political institutions, according to the particular circumstances of each territory and its peoples and their varying stages of advancement;

(c) to further international peace and security;

(d) to promote constructive measures of development, to encourage research, and to cooperate with one another and, when and where appropriate, with specialized international bodies with a view to the practical achievement of the social, economic, and scientific purposes set forth in this Article; and

(e) to transmit regularly to the Secretary-General for information purposes, subject to such limitation as security and constitutional considerations may require, statistical and other information of a technical nature relating to economic, social, and educational conditions in the territories for which they are respectively responsible other than those territories to which Chapters XII and XIII apply.

Article 74

Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect of their metropolitan areas, must be based on the general principle of good-neighborliness, due account being taken of the interests and well-being of the rest of the world, in social, economic, and commercial matters.

CHAPTER XII

International Trusteeship System

Article 75

The United Nations shall establish under its authority an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements. These territories are hereinafter referred to as trust territories.

Article 76

The basic objectives of the trusteeship system, in accordance with the Purposes

of the United Nations laid down in Article 1 of the present Charter, shall be:

(a) to further international peace and security;

(b) to promote the political, economic, social, and educational advancement of the inhabitants of the trust territories, and their progressive development towards self-government or independence as may be appropriate to the particular circumstances of each territory and its peoples and the freely expressed wishes of the peoples concerned, and as may be provided by the terms of each trusteeship agreement;

(c) to encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion, and to encourage recognition of the interdependence of the peoples of the world; and

(d) to ensure equal treatment in social, economic, and commercial matters for all Members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice, without prejudice to the attainment of the foregoing objectives and subject to the provisions of Article 80.

Article 77

1. The trusteeship system shall apply to such territories in the following categories as may be placed thereunder by means of trusteeship agreements:

(a) territories now held under mandate;

(b) territories which may be detached from enemy states as a result of the Second World War; and

(c) territories voluntarily placed under the system by states responsible for their administration.

2. It will be a matter for subsequent agreement as to which territories in the foregoing categories will be brought under the trusteeship system and upon what terms.

Article 78

The trusteeship system shall not apply to territories which have become Members of the United Nations, relationship among which shall be based on respect for the principle of sovereign equality.

Article 79

The terms of trusteeship for each territory to be placed under the trusteeship system, including any alteration or amendment, shall be agreed upon by the states directly concerned, including the mandatory power in the case of territories held under mandate by a Member of the United Nations, and shall be approved as provided for in Articles 83 and 85.

Article 80

1. Except as may be agreed upon in individual trusteeship agreements, made under Articles 77, 79, and 81, placing each territory under the trusteeship system, and until such agreements have been concluded, nothing in this Chapter shall be construed in or of itself to alter in any manner the rights whatsoever of any states or any peoples or the terms of existing international instruments to which Members of the United Nations may respectively be parties.

2. Paragraph 1 of this Article shall not be interpreted as giving grounds for delay or postponement of the negotiation and conclusion of agreements for placing mandated and other territories under the trusteeship system as provided for in Article 77.

Article 81

The trusteeship agreement shall in each case include the terms under which the trust territory will be administered and designate the authority which will exercise the administration of the trust territory. Such authority, hereinafter called the administering authority, may be one or more states or the Organization itself.

Article 82

There may be designated, in any trusteeship agreement, a strategic area or areas which may include part or all of the trust territory to which the agreement applies, without prejudice to any special agreement or agreements made under Article 43.

Article 83

1. All functions of the United Nations relating to strategic areas, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the Security Council.

2. The basic objectives set forth in Article 76 shall be applicable to the people of each strategic area.

3. The Security Council shall, subject to the provisions of the trusteeship agreements and without prejudice to security considerations, avail itself of the assistance of the Trusteeship Council to perform those functions of the United Nations under the trusteeship system relating to political, economic, social, and educational matters in the strategic areas.

Article 84

It shall be the duty of the administering authority to ensure that the trust territory shall play its part in the maintenance of international peace and security. To this end the administering authority may make use of volunteer forces, facili-

ties, and assistance from the trust territory in carrying out the obligations towards the Security Council undertaken in this regard by the administering authority, as well as for local defense and the maintenance of law and order within the trust territory.

Article 85

1. The functions of the United Nations with regard to trusteeship agreements for all areas not designated as strategic, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the General Assembly.

2. The Trusteeship Council, operating under the authority of the General Assembly, shall assist the General Assembly in carrying out these functions.

CHAPTER XIII

The Trusteeship Council Composition

Article 86

1. The Trusteeship Council shall consist of the following Members of the United Nations:

(a) those Members administering trust territories;

(b) such of those Members mentioned by name in Article 23 as are not administering trust territories; and

(c) as many other Members elected for three-year terms by the General Assembly as may be necessary to ensure that the total number of members of the Trusteeship Council is equally divided between those Members of the United Nations which administer trust territories and those which do not.

2. Each member of the Trusteeship Council shall designate one specially qualified person to represent it therein.

Functions and Powers

Article 87

The General Assembly and, under its authority, the Trusteeship Council, in carrying out their functions, may:

(a) consider reports submitted by the administering authority;

(b) accept petitions and examine them in consultation with the administering authority;

(c) provide for periodic visits to the respective trust territories at times agreed upon with the administering authority; and

(d) take these and other actions in conformity with the terms of the trusteeship agreements.

Article 88

The Trusteeship Council shall formulate a questionnaire on the political, economic, social, and educational advancement of the inhabitants of each trust territory, and the administering authority for each trust territory within the competence of the General Assembly shall make an annual report to the General Assembly upon the basis of such questionnaire.

Voting

Article 89

1. Each member of the Trusteeship Council shall have one vote.

2. Decisions of the Trusteeship Council shall be made by a majority of the members present and voting.

Procedure

Article 90

1. The Trusteeship Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Trusteeship Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

Article 91

The Trusteeship Council shall, when appropriate, avail itself of the assistance of the Economic and Social Council and of the specialized agencies in regard to matters with which they are respectively concerned.

CHAPTER XIV

The International Court of Justice

Article 92

The International Court of Justice shall be the principal judicial organ of the United Nations. It shall function in accordance with the annexed Statute, which is based upon the Statute of the Permanent Court of International Justice and forms an integral part of the present Charter.

Article 93

1. All Members of the United Nations are *ipso facto* parties to the Statute of the International Court of Justice.

2. A state which is not a Member of the United Nations may become a party to the Statute of the International Court of Justice on condition to be determined in each case by the General Assembly upon the recommendation of the Security Council.

Article 94

1. Each Member of the United Nations undertakes to comply with the decision of

the International Court of Justice in any case to which it is a party.

2. If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.

Article 95

Nothing in the present Charter shall prevent Members of the United Nations from entrusting the solution of their differences to other tribunals by virtue of agreements already in existence or which may be concluded in the future.

Article 96

1. The General Assembly or the Security Council may request the International Court of Justice to give an advisory opinion on any legal question.

2. Other organs of the United Nations and specialized agencies, which may at any time be so authorized by the General Assembly, may also request advisory opinions of the Court on legal questions arising within the scope of their activities.

CHAPTER XV

The Secretariat

Article 97

The Secretariat shall comprise a Secretary-General and such staff as the Organization may require. The Secretary-General shall be appointed by the General Assembly upon the recommendation of the Security Council. He shall be the chief administrative officer of the Organization.

Article 98

The Secretary-General shall act in that capacity in all meetings of the General Assembly, of the Security Council, of the Economic and Social Council, and of the Trusteeship Council, and shall perform such other functions as are entrusted to him by these organs. The Secretary-General shall make an annual report to the General Assembly on the work of the Organization.

Article 99

The Secretary-General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security.

Article 100

1. In the performance of their duties the Secretary-General and the staff shall not seek or receive instructions from any government or from any other authority external to the Organization. They shall

refrain from any action which might reflect on their position as international officials responsible only to the Organization.

2. Each Member of the United Nations undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to influence them in the discharge of their responsibilities.

Article 101

1. The staff shall be appointed by the Secretary-General under regulations established by the General Assembly.

2. Appropriate staffs shall be permanently assigned to the Economic and Social Council, the Trusteeship Council, and, as required, to other organs of the United Nations. These staffs shall form a part of the Secretariat.

3. The paramount consideration in the employment of the staff and in the determination of the conditions of service shall be the necessity of securing the highest standards of efficiency, competence, and integrity. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

CHAPTER XVI

Miscellaneous Provisions

Article 102

1. Every treaty and every international agreement entered into by any Member of the United Nations after the present Charter comes into force shall as soon as possible be registered with the Secretariat and published by it.

2. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.

Article 103

In the event of a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

Article 104

The Organization shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes.

Article 105

1. The Organization shall enjoy in the territory of each of its Members such privileges and immunities as are necessary for the fulfillment of its purposes.

2. Representatives of the Members of the United Nations and officials of the Organization shall similarly enjoy such privileges and immunities as are necessary for the independent exercise of their functions in connection with the Organization.

3. The General Assembly may make recommendations with a view to determining the details of the application of paragraphs 1 and 2 of this Article or may propose conventions to the Members of the United Nations for this purpose.

CHAPTER XVII

Transitional Security Arrangements

Article 106

Pending the coming into force of such special agreements referred to in Article 43 as in the opinion of the Security Council enable it to begin the exercise of its responsibilities under Article 42, the parties to the Four-Nation Declaration, signed at Moscow, October 30, 1943, and France, shall, in accordance with the provisions of paragraph 5 of that Declaration, consult with one another and, as occasion requires with other Members of the United Nations with a view to such joint action on behalf of the Organization as may be necessary for the purpose of maintaining international peace and security.

Article 107

Nothing in the present Charter shall invalidate or preclude action, in relation to any state which during the Second World War has been an enemy of any signatory to the present Charter, taken or authorized as a result of that war by the Governments having responsibility for such action.

CHAPTER XVIII

Amendments

Article 108

Amendments to the present Charter shall come into force for all Members of the United Nations when they have been adopted by a vote of two-thirds of the members of the General Assembly and ratified in accordance with their respective constitutional processes by two-thirds of the Members of the United Nations, including all the permanent members of the Security Council.

Article 109

1. A General Conference of the Members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any seven members of the Security Council. Each Member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two-thirds of the Members of the United Nations including all the permanent members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the conference shall be held if so decided by a majority vote of the members of the General Assembly and by a vote of any seven members of the Security Council.

CHAPTER XIX

Ratification and Signature

Article 110

1. The present Charter shall be ratified by the signatory states in accordance with their respective constitutional processes.

2. The ratifications shall be deposited with the Government of the United States of America, which shall notify all the signatory states of each deposit as well as the Secretary-General of the Organization when he has been appointed.

3. The present Charter shall come into force upon the deposit of ratifications by the Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, and by a majority of the other signatory states. A protocol of the ratifications deposited shall thereupon be drawn up by the Government of the United States of America which shall communicate copies thereof to all the signatory states.

4. The states signatory to the present Charter which ratify it after it has come into force will become original Members of the United Nations on the date of the deposit of their respective ratifications.

Article 111

The present Charter, of which the Chinese, French, Russian, English, and Spanish texts are equally authentic, shall remain deposited in the archives of the Government of the United States of America. Duly certified copies thereof shall be transmitted by that Government to the Governments of the other signatory states.

IN FAITH WHEREOF the representatives of the Governments of the United Nations have signed the present Charter.

DONE at the city of San Francisco the twenty-sixth day of June, one thousand nine hundred and forty-five.

AMERICAN ECONOMY



ALTHOUGH WE account for only 6.3% of the world's population, we own almost 50% of its wealth. We make, grow, build, sell, buy, and use more goods and services than any other country in the world. Of our population of over 176 million persons, about 65 million are employed, and over 43 million are enrolled in our schools and colleges (1957). Each year we spend more than \$300 billion on personal goods and services, of which \$87 billion go for food, tobacco, and alcohol alone. According to the American Automobile Association we spend \$15 billion on vacations every year. Our personal savings amount to over \$20 billion annually, in addition to

which 4 out of every 5 families are covered by life insurance. Of our 50 million dwelling units, 55% are occupied by their owners. The millions of acres of fertile farmland produce more food than we can eat. Our productive capacity is the largest in the world: we own 29% of the world's railroad mileage, 68% of its automobiles, 51% of its trucks, 52% of its radios, 40% of its electric power output, 38% of its steel. Our natural resources are tremendous: each year we produce 40% of the world's output of petroleum and about 29% of its coal. Our merchant fleets have outstripped Britain's, and we have the greatest volume of foreign trade.

Gross National Product or Expenditure (in millions of dollars)

Source: U. S. Department of Commerce.

Item	1929	1933	1938	1945	1948	1951	1958	1959*
Gross national product.....	104,436	55,964	85,227	213,558	259,426	328,975	441,702	470,200
GNP in constant (1954) dollars.....	181,944	126,606	174,965	314,044	297,205	341,965	399,000	424,591
Personal consumption expenditures...	78,952	46,392	64,641	121,699	178,313	209,805	292,956	303,900
Durable goods.....	9,212	3,469	5,686	8,105	22,723	29,471	37,621	41,300
Nondurable goods.....	37,677	22,251	33,985	73,222	98,737	110,135	141,942	145,300
Services.....	32,063	20,672	24,970	40,372	56,853	70,199	113,393	117,400
Gross private domestic investment.....	16,231	1,391	6,661	10,430	43,087	56,334	54,864	69,800
New construction.....	8,707	1,431	3,960	3,833	19,454	24,811	35,767	39,700
Producers' durable equipment.....	5,850	1,589	3,644	7,654	18,925	21,290	22,935	23,900
Change in business inventories.....	1,674	-1,629	-943	-1,057	4,708	10,233	-3,838	6,100
Net foreign investment.....	771	150	1,109	-1,438	1,929	229	1,239	-900
Government purchases.....	8,482	8,031	12,816	82,867	36,097	62,607	92,643	97,400
Federal.....	1,311	2,018	5,280	75,923	20,867	40,915	52,180	53,800†
National security.....	1,344	2,022	5,286	.....	15,832	37,180	44,541	45,800
Other.....					5,570	4,154	8,122	8,000
Less: Government sales.....	33	4	6	2,158	535	419	483	.....
State and local.....	7,171	6,013	7,536	8,071	15,230	21,692	40,463	43,600

* First quarter, revised. † Less government sales.

National Income by Distributive Shares (in millions of dollars)

Source: U. S. Department of Commerce.

Type of share	1929	1933	1939	1945	1948	1951	1953	1958	1958 % of total
National income.....	87,814	40,159	72,753	181,248	223,487	279,313	305,573	366,183	100.0
Compensation of employees.....	51,085	29,539	48,108	123,181	140,969	180,327	208,812	256,831	70.1
Wages and salaries.....	50,423	28,997	45,941	117,577	135,214	170,788	198,030	239,389	65.3
Supplements to wages and salaries.....	662	542	2,167	5,604	5,755	9,539	10,782	17,442	4.8
Income of unincorporated enterprises and inventory valuation adjustment	14,759	5,599	11,610	30,835	40,194	42,329	40,723	46,555	12.8
Business and professional.....	8,791	3,166	7,293	19,011	22,405	25,995	27,445	32,357	8.9
Farm.....	5,968	2,433	4,317	11,824	17,789	16,334	13,278	14,198	3.9
Rental income of persons.....	5,425	1,971	2,742	5,634	7,297	9,431	10,528	11,819	3.2
Corporate profits and inventory valuation adjustment.....	10,100	-1,992	5,689	18,413	30,848	40,954	37,314	36,697	10.0
Net interest.....	6,445	5,042	4,604	3,185	4,179	6,272	8,196	14,281	3.9

How Consumers Spend Their Dollar

Source: U. S. Department of Commerce.

Group	(in millions of dollars)									1958 % of total
	1929	1932	1939	1945	1947	1949	1953	1957	1958	
Food ¹ and tobacco.....	21,374	12,719	21,072	45,924	58,274	58,384	70,606	81,641	82,980	28.3
Clothing, accessories, and jewelry.....	11,018	5,973	8,299	20,247	22,952	23,451	26,668	29,985	31,459	10.7
Personal care.....	1,116	817	1,004	2,077	2,253	2,324	2,973	3,963	4,255	1.5
Housing.....	11,421	8,964	8,940	12,205	15,567	19,295	27,485	35,367	38,001	12.9
Household operation.....	10,509	6,675	9,461	14,865	23,949	25,651	32,275	39,984	41,309	14.1
Medical care and death expenses.....	3,620	2,575	3,385	5,902	7,685	9,003	12,200	16,399	17,826	6.1
Personal business.....	5,221	3,111	3,725	4,787	5,707	7,015	10,783	15,736	16,550	5.7
Transportation.....	7,496	3,924	6,250	6,694	15,390	20,864	29,619	36,345	33,607	11.5
Recreation.....	4,327	2,439	3,446	6,314	9,352	10,122	12,892	15,908	16,973	5.8
Private education and research.....	664	571	628	871	1,411	1,683	2,244	3,047	3,428	1.2
Religious and welfare activities.....	1,196	973	938	1,572	2,032	2,235	2,778	3,607	3,939	1.3
Foreign travel and remittances—net.....	799	467	317	1,621	837	1,131	2,126	2,460	2,629	0.9
Total personal consumption expenditures.....	78,761	49,208	67,466	123,079	165,409	181,158	232,649	284,442	292,956	100.0

¹ Includes expenditures for alcoholic beverages in 1958 of \$9,210,000,000.

Consumers' Price Index (1947-49 = 100)

Source: U. S. Bureau of Labor Statistics.

Items	1947	1948	1951	1953	1958	1959
All items.....	95.5	102.8	111.0	114.4	123.5	123.7
Total food.....	95.9	104.1	112.6	112.8	120.3	118.2
Apparel.....	97.1	103.5	106.9	104.8	107.0	106.7
Housing total.....	95.0	101.7	112.4	117.7	127.7	128.5
Rent.....	94.4	100.7	113.1	124.1	137.7	139.0
Gas and electricity.....	97.6	100.0	103.1	106.6	117.0	118.5
Solid fuels and fuel oil.....	88.8	104.4	116.4	123.9	134.9	140.0
Housefurnishings.....	97.2	103.2	111.2	107.9	103.9	103.8
Household operation.....	97.2	102.6	109.0	115.3	131.4	133.1
Transportation.....	90.6	100.9	118.4	129.7	140.5	144.3
Medical care.....	94.9	100.9	111.1	121.3	144.5	148.6
Personal care.....	97.6	101.3	110.5	112.8	128.6	129.8
Reading and recreation.....	95.5	100.4	106.5	108.0	116.7	117.1
Other goods and services.....	96.1	100.5	109.7	118.2	127.2	127.4

* February.

U. S. Consumption of Principal Foods*

(in pounds per capita)

Source: U. S. Department of Agriculture.

Foods	1935-39 avg.	1947-49 -avg.	1959 ²
Red meats.....	125.3	146.4	157.5
Poultry meats.....	15.3	21.7	36.2
Eggs ¹	296.0	380.0	353.0
Dried milk and cream.....	330.0	359.0	348.0
Cheese.....	5.5	6.9	8.2
Butter.....	16.8	10.5	8.4
Margarine.....	2.8	5.5	9.2
Fats and oils ²	28.9	28.9	32.1
Fresh fruits.....	137.1	130.3	100.0
Processed fruits ¹	25.1	41.5	44.8
Fresh vegetables.....	139.0	150.0	127.0
Processed vegs. ¹	30.0	41.4	51.9
Potatoes, sweetpots.....	149.3	124.3	109.7
Sugar.....	96.7	93.5	97.0
Corn products.....	37.4	33.5	26.7
Wheat flour.....	157.0	135.0	120.0
Coffee.....	13.9	18.0	16.3
Cocoa.....	4.3	4.0	3.9

¹ Number, not pounds. ² Excludes butter and margarine. ³ Preliminary estimates. * Pack year. * Civilian consumption only.

Consumer Credit

(in millions of dollars)

Source: Federal Reserve Board.

End of year	Total	Install- ment credit	Non- installment credit*	Charge accounts
1929.....	6,444	3,151	1,691	1,602
1932.....	3,567	1,521	1,026	1,020
1935.....	4,911	2,694	1,034	1,183
1939.....	7,222	4,503	1,305	1,414
1940.....	8,338	5,514	1,353	1,471
1943.....	4,901	2,136	1,325	1,440
1946.....	8,384	4,172	2,136	2,076
1949.....	17,305	11,590	2,920	2,795
1950.....	21,395	14,703	3,401	3,291
1952.....	27,401	19,403	3,987	4,011
1953.....	31,243	23,005	4,114	4,124
1955.....	38,648	29,020	5,084	4,544
1956.....	41,863	31,552	5,609	4,702
1958.....	45,065	33,865	6,182	5,018
1959†.....	44,203	33,943	6,377	3,883

* Single payment loans and service credit. † End of March.

Minutes of Working Time Required for Purchase of Selected Consumer Items in 1957

Source: National Conference Industrial Board.

Food	U. S.	Austria	Belgium	Sweden	France	West Germany	Italy	U. K.	Canada	Mexico	Japan	Australia	U.S.S.R.
Flour, wheat (1 kg.).....	7	27	36	13	34	21	39	15	7	30	41	10	59
Rice (1 kg.).....	11	36	40	24	53	28	52	31	...	51	64	17	200
Bread, white (1 kg.).....	12	43	18	22	20	28	38	13	12	47	58	11	19
Beef, sirloin ¹ (1 kg.).....	61	265	296	149	326	142	387	116	70	168	356	65	200
Pork, loin chops (1 kg.).....	56	204	220	93	190	160	...	113	61	229	346	87	369 ²
Fish, fresh (1 kg.).....	27	130	143	46	71	67	328	59	31	181	81	110	297 ²
Butter (1 kg.).....	48	211	230	93	283	197	342	88	56	323	576	80	425
Milk, pasteurized (1 liter)...	7	14	18	8	16	12	25	14	8	25	59	12	33
Eggs, fresh (one).....	2	8	7	4	10	7	11	4	2	11	10	3	11
Apples, eating (1 kg.).....	8	59	29	30	86	46	54	32	11	90	...	...	196
Cabbage (1 kg.).....	5	14	10	6	15	9	...	9	6	30	18	...	81 ²
Potatoes (1 kg.).....	4	6	6	6	8	6	14	7	3	20	17	7	13
Coffee (1 kg.).....	61	519	309	174	351	557	658	217	78	256	...	195	985 ²
Tea (1 kg.).....	94 ²	710	679	339	973	868	842	178	99	2,088	272	108	1,216
Oleomargarine (1 kg.).....	19	84	59	44	97	57	...	46	28	168	246	49	334 ²
Sugar (1 kg.).....	7	38	34	16	34	33	71	15	10	25	115	15	144
Cigarettes (20).....	7 ²	28	20	33 ⁴	33	46	46 ⁴	46	13	10	45	23	...
Electricity (1 kwh.).....	2	3	9	2	9	6	12	2	1	7	9	1	...
Coal (100 kg.).....	90	723	509	...	660	213	1,332	174	107	76	850	...	...

¹ Boneless. ² Estimated. ³ Weighted average of 5 cities. ⁴ Home produced.

New Construction Activity, by Type (in millions of dollars)

Source: U. S. Department of Commerce and U. S. Department of Labor.

Activity	1929	1933	1940	1945	1949	1957	1958
Total new construction activity.....	10,793	2,879	8,682	5,633	22,789	48,115	48,980
New private construction activity.....	8,307	1,231	5,504	3,235	16,384	33,988	33,947
Residential (nonfarm).....	3,625	470	2,985	1,100	8,267	17,019	17,884
New dwelling units.....	3,040	290	2,560	720	7,257	12,615	13,405
Additions and alterations.....	340	145	335	340	825	3,903	3,859
Nonhousekeeping.....	245	35	90	40	185	501	620
Nonresidential building, except farm and public utility...	2,694	406	1,025	1,020	3,228	9,556	8,720
Industrial.....	949	176	442	642	972	3,557	2,443
Commercial ¹	1,135	130	348	203	1,027	3,564	3,561
Other.....	610	100	235	175	1,229	2,435	2,716
Public utility.....	1,578	261	771	827	3,323	5,624	5,554
Railroad.....	510	94	167	264	352	406	276
Telephone and telegraph.....	354	45	122	117	533	1,068	903
Other public utility.....	714	115	482	446	2,438	4,150	4,375
Farm construction.....	307	49	240	267	1,488	1,590	1,600
All other private.....	103	45	33	21	78	199	189
New public construction activity.....	2,486	1,648	3,628	2,398	6,405	14,127	15,033
Residential.....	...	...	200	80	359	506	832
Nonresidential building.....	659	230	615	937	2,068	4,503	4,622
Industrial.....	...	2	164	755	177	473	370
Educational.....	389	52	156	59	934	2,825	2,877
Hospital and institutional.....	101	49	54	85	477	350	401
Other.....	169	127	241	38	480	855	974
Military and Naval.....	19	36	385	690	137	1,322	1,235
Highway.....	1,266	847	1,302	398	2,131	4,971	5,350
Sewer and water.....	253	95	338	97	619	1,344	1,388
Conservation and development.....	115	359	528	130	793	971	1,004
All other ²	23	16	260	66	298	117	152

¹ Warehouses, office and loft buildings; stores, restaurants and garages. ² Miscellaneous public service enterprises and all Federal not included elsewhere.

Number of Nonfarm Houses Built*

Source: U. S. Bureau of Labor Statistics. National Bureau of Economic Research.

Year	Houses	Year	Houses
1900.....	204,000	1944.....	169,000
1910.....	475,000	1949.....	1,025,100
1920.....	247,000	1950.....	1,396,000
1929.....	509,000	1952.....	1,127,000
1933.....	93,000	1953.....	1,103,800
1937.....	336,000	1956.....	1,118,000
1939.....	515,000	1957.....	1,041,900
1943.....	350,000	1958†.....	1,209,900

* Data represent new dwelling units started. † Preliminary.

Monthly Average Railroad Carloadings (in thousands of cars)

Source: Association of American Railroads.

Year	Total	Year	Total
1920.....	3,760	1947.....	3,708
1925.....	4,269	1948.....	3,643
1929.....	4,402	1949.....	2,992
1932.....	2,348	1950.....	3,242
1939.....	2,826	1951.....	3,437
1940.....	3,030	1952.....	3,165
1942.....	3,564	1953.....	3,192
1943.....	3,535	1956.....	3,153
1944.....	3,617	1957.....	2,963
1945.....	3,492	1958.....	2,517

Industrial Production Indexes, by Groups

(1947-49 average = 100)

Source: Board of Governors of the Federal Reserve System.

Industry	1950	1957	1958	1959*	Industry	1950	1957	1958	1959*
Durable manufactures.....	116	160	141	157	Leather and products.....	101	104	102	109
Ferrous metals.....	114	132	99	140	Paper and allied products.....	118	158	160	169
Nonferrous metals.....	116		121	145	Printing and publishing.....	111	141	139	145
Fabricated metal products.....	115	139	128	137	Chemicals and allied products.....	121	184	184	198
Machinery.....	114	168	145	157	Petroleum and coal products.....	110	141	134	145
Transportation equipment.....	120	213	187	205	Food and beverage products.....	103	130	115	118
Instruments and related products.....	114	172	164	178	Tobacco manufactures.....	101	111	118	126
Stone, clay and glass products.....	118	155	145	151	Total manufactures.....	113	145	136	148
Lumber and products.....	113	114	115	127	Minerals.....	105	128	117	123
Furniture and misc.....	117	120	127	136	Fuels.....	103	133	117	122
Nondurable manufactures.....	111	130	130	138	Stone & earth minerals.....	111	143	143	146
Textile mill products.....	111	99	98	108	Total industrial production.....	112	143	134	145
Apparel and allied products.....	108	111	110	117					
Rubber products.....	119	135	125	149					

* Average of first 3 months.

Electric Energy Output of Utilities*

(in millions of kilowatt hours)

Source: Federal Power Commission.

Year	Total	Ownership						Source of energy	
		Privately owned	Publicly owned	Municipal	Federal	Co-operatives, power districts, state projects	% Public to total	Fuels	Fuels as % of total
1920.....	39,405	37,716	1,689	1,373	58	94	4.3	23,644	60.0
1929.....	92,180	87,514	4,667	3,498	300	451	5.1	59,533	64.6
1933.....	81,740	76,668	5,072	3,583	458	654	6.2	48,283	59.1
1939.....	127,642	115,078	12,564	5,688	5,476	944	9.8	84,078	65.9
1943.....	217,759	180,247	37,511	9,223	24,485	3,156	17.2	144,127	66.2
1951.....	370,673	301,845	68,828	17,617	44,120	6,204	18.6	270,922	73.1
1953.....	442,665	354,273	88,393	21,625	58,064	8,704	20.0	337,431	76.2
1956.....	600,668	459,015	141,653	28,006	100,711	12,937	23.6	478,639	79.7
1957.....	631,507	480,943	150,564	27,850	109,176	13,538	23.8	501,275	79.4
1958†.....	644,760	490,305	154,455	28,352	110,438	15,666	24.0	504,713	78.3

* Output by industrial establishments was as follows (in millions of kilowatt hours): 1939—33,667; 1943—49,781; 1951—62,685; 1953—71,505; 1955—81,972; 1956—84,136; 1957—84,849; 1958 preliminary—78,263. † Preliminary.

Fuel Production

Source: U. S. Dept. of Interior, U. S. Dept. of Commerce, and American Gas Association.

Year	Coke, in thousands of short tons	Anthracite coal, in thousands of short tons	Bituminous coal, in thousands of short tons	Natural gas, in millions of therms (produced and marketed) ¹	Manufactured gas, in millions of therms ²	Crude petroleum, in thousands of 42-gal. barrels
1929.....	59,884	73,828	534,989	20,490 ³	2,070 ³	1,007,323
1933.....	27,589	49,541	333,631	16,640 ³	1,820	905,656
1939.....	44,327	51,487	394,855	26,220	1,830	1,264,962
1941.....	65,187	56,368	514,149	29,780	1,990	1,402,228
1945.....	67,308	54,934	577,617	41,960	2,600	1,713,655
1949.....	63,637	42,702	437,868	55,770	2,680	1,841,940
1951.....	79,331	42,670	533,645	76,660	2,435	2,244,529
1953.....	78,467	30,023	453,000	90,270	1,756	2,359,998
1956.....	81,498	28,578	500,505	108,381	1,434	2,617,432
1957.....	82,464	25,476	489,996	114,810	1,167	2,616,780
1958.....	59,037	21,856	400,090	117,025	1,093	2,448,937

¹ Includes all natural gas in sales of natural gas mixed with manufactured gas. ² Includes all manufactured gas products produced and purchased by gas utilities. ³ Estimated.

Metals Production (in short tons)

Source: American Iron & Steel Institute, Iron Age, American Zinc Institute, American Bureau of Metal Statistics and U. S. Bureau of Mines.

Year	Pig iron and ferroalloys	Steel ingots and castings	Rolled iron and steel products Total	Plates and sheets	Aluminum (primary)	Copper (smelter output from domestic ore)	Zinc (slab smelter output, all grades)*	Mine production of recoverable lead in the U. S.
1929.....	47,727,661	63,205,490	45,997,746	13,928,670	113,986	1,001,432	631,601	672,498
1932.....	9,835,227	15,322,901	11,705,219	3,956,505	52,444	272,005	213,531	255,337
1939.....	35,677,097	52,798,714	39,067,553	13,931,919	163,545	712,675	538,198	420,967
1941.....	56,686,604	82,839,259	62,324,187	20,293,071	309,067	966,072	863,955	470,517
1943.....	62,769,947	88,836,512	63,292,673	22,543,040	920,179	1,092,939	971,873	406,544
1945.....	54,919,029	79,701,648	59,811,669	19,314,316	495,060	722,894	799,520	356,535
1948.....	61,911,559	88,640,470	69,191,952	25,694,480	623,456	834,813	850,105	339,413
1949.....	54,916,785	77,978,176	60,882,387	23,470,886	603,462	752,750	870,113	404,449
1951.....	72,448,543	105,199,848	81,911,320	31,869,683	836,881	928,330	931,833	342,644
1952.....	63,353,955	93,168,039	71,348,528	27,251,852	937,331	925,359	961,430	383,358
1953.....	77,250,168	111,609,719	85,943,724	35,699,732	1,252,013	926,448	971,191	328,012
1954.....	59,806,242	88,311,652	68,464,640	28,406,447	1,460,565	835,472	868,242	322,271
1956.....	77,575,458	115,216,149	89,284,317	38,709,832	1,678,954	1,114,285	1,062,954	340,000
1957.....	79,339,671	112,714,996	85,886,891	35,575,848	1,647,698	1,076,928	1,057,452	338,216
1958.....	57,764,100	85,254,885	65,105,455	29,683,253	1,564,341	1,001,615	781,664	265,520

* From 1940 includes both foreign and domestic ores.

Business Population
(in thousands of concerns)

Source: U. S. Department of Commerce, Dun & Bradstreet.

Item	1929	1933	1941	1943	1946	1949	1953	1957	1958	1959 ^a
Total operating businesses ¹	3,029.0	2,782.1	3,269.6	2,905.1	3,487.2	4,000.0	4,205.7	4,470.7	4,534.4	4,589.2
Manufacturing.....	257.0	166.8	236.6	244.9	285.9	320.5	326.6	332.3	333.0	331.0
Wholesale trade.....	148.1	141.8	194.4	172.6	292.2	261.8	285.0	303.7	310.9	317.0
Retail trade.....	1,327.0	1,291.2	1,558.3	1,329.1	1,555.4	1,794.3	1,859.2	1,925.6	1,947.8	1,956.3
Service industries.....	590.9	574.9	614.4	553.6	656.5	736.8	741.9	810.0	830.1	851.9
Contract construction.....	233.8	185.4	186.4	157.2	243.8	347.5	432.3	465.4	467.6	475.9
All other ²	472.0	422.1	479.5	447.7	520.3	539.1	560.6	633.7	645.0	657.1
New entrants.....	(³)	(³)	290.0 ²	146.0 ²	617.4 ²	331.1 ²	340.5 ²	405.1	411.3	....
Discontinued businesses.....	(³)	(³)	270.7 ²	337.0 ²	208.7 ²	306.5 ²	334.0 ²	341.4	356.5	....
Commercial & industrial failures ⁴ ..	22.9	19.9	11.8	3.2	1.1	9.2	8.9	13.7	15.0	....

¹ 1929-51, annual average; 1953-54, as of June 30. ² Annual total. ³ Not available. ⁴ Closures resulting in a known loss to creditors. ⁵ Includes transportation, communications, public utilities, finance, insurance, real estate, and mining and quarrying. ⁶ Preliminary.

Consumer Durable Goods Output

Source: Electrical Merchandising; MART Magazine, Caldwell-Clements, Inc.; Electronic Industries Association; Automobile Manufacturers Association.

Year	Electric clothes washers		Standard electric ranges		Electric vacuum cleaners		Electric refrigerators		Radio sets		Television sets		Passenger cars	
	Number sold, in thou- sands	Average retail price	Number sold, in thou- sands	Average retail price	Number sold, in thou- sands	Average retail price	Number sold, in thou- sands	Average retail price	Output in thou- sands	Average retail price ³	Output in thou- sands	Average retail price ³	Factory sales, in thou- sands	Average factory price
1900.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	\$1,229
1910.....	3 ¹	\$ 75 ¹	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	181	1,190
1920.....	600	120	40	...	1,024	\$50	5 ²	\$550 ²	.....	.....	.....	.....	1,906	949
1925.....	736	141	85	\$176	1,056	62	75	425	.....	.....	.....	.....	3,735	658
1929.....	956	113	173	165	1,253	50	778	292	.....	.....	.....	.....	4,587	621
1932.....	570	59	60	150	447	40	798	195	2,446	\$47	.....	.....	1,135	545
1937.....	1,465	72	405	134	1,210	56	2,310	171	8,083	56	.....	.....	3,916	573
1941.....	1,892	79	728	142	1,670	56	3,500	155	13,642	35	.....	.....	3,780	679
1946.....	2,047	121	577	186	2,290	68	2,100	207	15,955	50	.....	.....	2,149	921
1948.....	4,196	173	1,600	235	3,361	77	4,766	260	16,500	52	975	\$393	3,909	1,220
1949.....	3,065	171	1,056	230	2,890	77	4,450	255	11,400	42	3,000	323	5,119	.....
1950.....	4,273	184	1,830	233	3,529	79	6,200	258	13,468	44	7,464	300	6,666	.....
1952.....	3,267	217	1,400	245	2,842	92	4,075	275	10,431	34	6,096	308	4,321	.....
1955.....	4,391	235	1,600	263	3,330	88	4,025	315	14,133	32	7,575	231	7,920	.....
1957.....	3,791	248	940	255	3,190	84	3,350	320	14,505	32	6,399	190	6,113	.....
1958.....	3,692	248	800	255	3,295	89	3,050	320	11,747	32	4,920	190	4,258	.....

¹ 1909. ² 1921. ³ Average retail prices not supplied by Electronic Industries Association.

Wood Pulp, Paper and Lumber

Source: U. S. Bureau of the Census and National Lumber Manufacturers Assn.

Expenditures for New Plant and

Equipment*

(in millions of dollars)

Source: Securities and Exchange Commission and U. S. Department of Commerce.

Year	Wood pulp (in thousands of short tons)	Paper and paperboard (in thousands of short tons)	Lumber (in millions of board feet)
1919.....	3,518	6,098	34,552
1929.....	4,863	11,140	36,886
1939.....	6,993	13,510	25,148
1941*.....	10,011	17,934	33,613
1943.....	9,060	17,036	34,289
1945.....	10,167	17,371	28,122
1947.....	11,946	21,114	35,404
1948.....	12,872	21,897	36,762
1949.....	12,207	20,315	32,901
1950.....	14,849	24,375	38,902
1952.....	16,473	24,418	37,462
1955.....	20,829	29,892	39,108†
1956.....	22,129	31,333	37,526
1957.....	21,808	30,696	33,396
1958.....	21,614	30,229	33,275

* Coverage for paper and paperboard increased in 1941.
† Subject to revision.

Year	Manufacturing and mining	Transportation	All other†	Total
1939.....	2,269	645	2,598	5,512
1945.....	4,366	1,122	3,204	8,692
1946.....	7,217	1,506	6,125	14,848
1947.....	9,394	2,187	9,031	20,612
1948.....	10,016	2,604	9,439	22,059
1949.....	7,941	2,239	9,105	19,285
1950.....	8,198	2,323	10,084	20,605
1952.....	12,617	2,896	10,980	26,493
1956.....	16,195	2,943	15,943	35,081
1957.....	17,200	3,680	16,620	36,900
1958.....	12,375	2,254	15,897	30,526
1959†.....	12,242	2,668	15,500	30,410

* Data exclude agriculture. † Includes electric and gas utilities, trade, service, communications, construction and finance. ‡ First 6 months, estimated.

Industrial Production Indexes for Western Europe

Source: United Nations.
(1953 = 100)

Country	1948	1950	1955	1958	Country	1948	1950	1955	1958
Austria.....	54	86	133	150	Italy.....	62	79	118	141
Belgium.....	88	90	116	115	Luxemburg.....	91	92	116	125
Denmark.....	82	98	112	120	Netherlands.....	71	88	118	126
France.....	81	88	121	153	Norway.....	70	87	117	124
Germany (Fed. Rep.)..	40	72	129	152	Sweden.....	90	97	111	118
Greece.....	52	78	130	161	United Kingdom....	83	94	113	114
Ireland.....	70	91	107	104					

Employment and Unemployment (in millions of persons)

Sources: U. S. Bureau of Labor Statistics, U. S. Bureau of the Census, and U. S. Bureau of Agricultural Economics.

Activity	1929	1932	1941	1943	1945	1950	1957	1958	1959 ¹
Total employment.....	46.7	37.9	50.4	54.5	52.8	60.0	65.0	63.9	65.0
Non-agricultural employment.....	36.8	26.3	41.3	45.4	44.2	52.5	58.8	58.1	59.2
Manufacturing.....	10.5	6.8	13.0	17.4	15.2	14.9	16.8	15.5	16.0
Durable goods.....	...	...	...	6.5	6.3	8.0	9.8	8.8	9.3
Nondurable goods.....	...	...	...	10.9	8.9	6.9	7.0	6.7	6.7
Mining.....	1.1	0.7	.9	.9	.8	.9	0.8	0.7	0.7
Construction.....	1.5	1.0	1.8	1.6	1.1	2.3	3.0	2.6	2.6
Transportation and public utilities.....	3.9	2.8	3.2	3.6	3.9	4.0	4.2	3.9	3.9
Trade.....	6.4	4.9	7.6	7.3	7.7	9.5	11.5	11.1	11.1
Retail.....	...	...	...	5.7	5.9	7.0	8.4	8.1	3.0
Wholesale.....	...	...	...	1.6	1.8	2.5	3.1	3.0	8.1
Finance.....	1.4	1.3	1.5	1.4	1.4	1.8	2.3	2.4	2.4
Service.....	3.1	2.7	3.6	3.8	3.9	4.8	6.5	6.4	6.5
Government.....	3.1	3.2	4.6	6.0	6.0	5.9	7.4	7.9	8.1
Other, self-employed, domestic.....	6.9	5.1	5.1	3.4	4.2	8.4	(*)	(*)	(*)
Agricultural employment.....	9.9	9.6	9.1	9.1	8.6	7.5	6.2	5.8	5.8
Unemployment.....	2.0	12.7	5.5	1.1	1.1	3.1	2.9	4.7	3.6
Total civilian labor force.....	48.7	50.6	55.9	55.5	53.9	63.1	67.9	68.7	68.7
Armed forces.....	.3	.3	1.5	8.9	11.3	1.5	2.8	2.3	2.5
Total labor force.....	49.0	50.9	57.4 ²	64.4	65.2	64.6	70.7	71.0	71.2

¹ April. ² Includes 1.9 million employed in public works. ³ Included in services, transportation and public utilities and retail trade.

Average Earnings and Hours Worked Per Week in Manufacturing Industries

Source: U. S. Department of Labor.

Industry	1947		1949		1951		1953		1958		1959 ²	
	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked
All manufacturing ¹	\$54.14	40.1	\$54.92	39.2	\$64.71	40.7	\$71.69	40.5	\$ 83.56	39.2	\$ 87.38	39.9
Durable goods.....	57.11	40.5	58.03	39.5	69.47	41.6	77.23	41.3	90.23	39.6	94.94	40.4
Primary metal industries.....	61.03	40.1	60.78	38.3	75.12	41.5	84.25	40.9	101.16	38.1	111.08	40.1
Iron and steel foundries.....	58.45	40.7	55.09	37.2	71.66	42.4	76.33	40.6	86.00	37.3	94.80	39.5
Nonferrous foundries.....	59.96	40.0	60.92	39.0	73.74	41.9	80.97	41.1	92.81	39.6	98.40	41.0
Fabricated metal products.....	56.68	40.6	57.82	39.6	68.81	41.7	77.15	41.7	90.83	39.9	93.96	40.5
Hand tools.....	56.07	40.9	54.54	38.6	69.70	42.5	74.70	41.5	84.91	39.4	90.45	40.2
Hardware.....	54.26	40.4	56.28	39.3	66.49	41.3	75.89	41.7	89.37	40.1	96.10	41.6
Structural metal products.....	58.17	41.2	59.90	40.5	71.49	42.3	80.75	42.5	93.42	40.1	92.98	39.4
Electrical machinery.....	55.66	40.1	56.96	39.5	64.84	41.3	71.81	40.8	85.22	39.6	89.06	40.3
Machinery, except electrical.....	60.52	41.2	60.44	39.5	76.38	43.4	82.91	42.3	94.36	39.6	99.06	40.6
Transportation equipment.....	61.58	39.0	64.95	39.2	75.67	40.9	85.28	41.2	100.50	39.8	107.16	40.9
Automobiles.....	61.86	38.4	65.97	38.9	75.45	39.5	87.95	41.1	101.29	39.1	111.78	41.4
Lumber and wood products.....	51.38	41.5	51.72	40.6	59.98	40.8	65.93	40.7	75.01	39.8	75.24	39.6
Furniture & fixtures.....	48.99	41.1	49.48	40.1	57.27	41.2	63.14	41.0	70.21	39.5	72.36	40.2
Stone, clay and glass.....	53.46	40.9	54.45	39.8	63.91	41.5	70.35	40.9	84.60	40.0	87.05	40.3
Nondurable goods.....	50.61	39.6	51.41	38.8	58.46	39.5	63.60	39.5	75.76	38.6	77.81	39.3
Textile—mill products.....	45.59	39.2	44.83	37.7	51.60	38.8	53.57	39.1	56.56	38.6	60.74	39.7
Cotton, silk, synthetic fibers.....	44.36	39.4	42.89	37.2	50.70	39.3	51.09	39.3	55.16	38.5	57.17	39.7
Woolen and worsted goods.....	52.45	40.1	51.19	38.9	57.87	39.1	61.93	39.7	65.34	40.7	67.14	41.7
Apparel and other finished textiles.....	42.79	36.2	41.89	35.8	46.31	35.9	48.41	36.4	53.51	35.4	55.08	36.0
Leather.....	41.66	37.2	41.61	36.6	46.86	36.9	51.65	37.7	57.61	36.7	62.08	38.8
Food.....	51.87	42.0	53.58	41.5	59.92	41.9	66.33	41.2	81.55	40.6	84.65	40.5
Tobacco.....	36.50	38.1	37.25	37.1	43.51	38.5	47.37	38.2	62.51	39.1	63.96	39.0
Paper.....	55.25	42.8	55.96	41.7	65.51	43.1	72.67	43.0	88.49	41.9	91.58	42.4
Printing and publishing.....	66.73	39.3	70.28	38.7	77.21	38.8	85.58	38.9	97.97	37.8	99.41	37.8
Chemicals.....	56.23	41.5	58.63	41.0	67.81	41.6	75.58	41.3	94.59	40.9	97.88	41.3
Petroleum and coal.....	69.23	40.7	72.36	40.4	80.98	40.9	90.17	40.8	110.85	40.5	114.26	41.1
Rubber.....	56.78	39.0	57.79	38.3	68.61	40.6	77.78	40.3	92.38	39.3	99.87	41.1

¹ Average weekly earnings in 1919 = \$23.29, 1929 = \$26.40, 1932 = \$17.86, 1939 = \$24.23. Average hours worked per week in 1914 = 51.0, 1919 = 47.8, 1929 = 45.7, 1932 = 38.2, 1939 = 37.7. ² January.

Average Earnings and Hours Worked Per Week in Nonmanufacturing Industries

Source: U. S. Department of Labor.

Industry	1947		1949		1951		1955		1958	
	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked
Anthracite mining.....	\$62.77	37.7	\$56.78	30.2	\$66.66	30.3	\$84.50	33.4	\$ 76.84	28.9
Bituminous coal mining.....	66.59	40.7	63.28	32.6	77.79	35.2	96.26	37.6	102.65	33.9
Metalliferous mining.....	54.63	41.8	61.55	40.9	74.56	43.6	92.42	42.2	96.33	33.9
Quarrying and nonmetallic mining.....	50.54	45.0	56.38	43.3	67.05	45.0	80.99	44.5	89.46	44.1
Telephone.....	44.77	37.4	51.78	38.5	58.26	39.1	72.07	39.6	78.94	38.4
Telegraph.....	53.56	44.6	62.85	44.7	68.24	44.6	78.54	42.0	90.21	41.6
Gas and electric utilities.....	56.69	41.9	63.99	41.5	72.49	41.9	86.52	41.2	100.41	40.8
Street railways and busses.....	57.14	46.8	64.61	44.9	72.23	46.3	80.60	43.1	90.47	42.7
Wholesale trade.....	51.99	41.0	57.55	40.7	64.31	40.7	77.55	40.6	87.07	40.1
Retail trade.....	40.66	40.3	45.93	40.4	50.65	40.2	58.50	39.0	64.98	38.1
Hotels (year-round).....	29.36	45.2	32.84	44.2	35.42	43.2	41.09	41.5	44.98	40.0
Laundries.....	32.71	42.6	34.98	41.5	37.81	41.1	40.70	40.3	44.48	39.2
Dyeing and cleaning.....	38.30	41.9	40.71	41.2	43.99	41.5	47.40	39.5	50.86	38.4
Private building construction.....	63.13	37.6	70.95	36.7	81.47	37.2	96.30	36.1	102.36	35.5

State and Local Government Employment and Monthly Payroll: October 1958

Source: U. S. Department of Commerce.

Function	Employees (in thousands)	Payroll (in millions)	Function	Employees (in thousands)	Payroll (in millions)
Total all functions.....	5,892	\$1,885.8	Hospitals.....	549	\$ 142.2
Education, total.....	2,589	905.7	Police.....	316	111.0
Public schools.....	2,177	782.3	Local fire protection.....	207	56.9
Institutions of higher learning.....	382	112.9	Natural resources.....	131	40.1
Other.....	30	10.5	Sanitation.....	130	40.9
Highways.....	525	161.0	Local utilities, total.....	236	89.6
Public welfare.....	115	34.5	General control.....	473	113.6
Health.....	79	25.3	All other.....	541	165.0

Why Strikes?

Major issues	Percentage of total strikes			
	1949	1956	1957	1958
Wages and hours.....	46.6	47.6	47.1	50.8
Union organization, wages and hours.....	6.0	8.6	8.4	6.0
Union organization.....	15.7	11.6	12.0	9.8
Recognition.....	10.8	7.9	8.4	6.8
Strengthening bargaining po- sition.....	.5	1.1	.5	.6
Closed or union shop.....	2.2	2.0	2.3	1.9
Discrimination.....	1.8	.3	.6	.2
Other.....	.4	.3	.2	.2
Other working conditions.....	25.0	22.5	22.8	23.7
Job security.....	12.6	10.9	10.9	11.7
Shop conditions and policies..	9.7	10.1	9.4	9.7
Work load.....	2.1	1.4	2.3	2.2
Other.....	.6	.1	.1	.1
Interunion or intraunion matters	5.8	8.3	8.9	8.7
Sympathy.....	1.4	1.8	1.7	1.6
Union rivalry or factionalism..	1.5	.7	.7	.6
Jurisdiction.....	2.6	5.6	6.3	6.3
Other.....	.3	.2	.2	.2
Not reported.....	.9	1.3	.8	1.1
All issues.....	100.0	100.0	100.0	100.0

Strikes and Lockouts

Source: U. S. Bureau of Labor Statistics.

Year	Strikes and lockouts Number	Workers involved Number (thousands)	Man-days idle Number (thousands)
	Number	(thousands)	(thousands)
1895.....	695	258	n.a.
1890.....	1,897	373	n.a.
1895.....	1,255	407	n.a.
1900.....	1,839	568	n.a.
1905.....	2,186	302	n.a.
1915.....	1,593	n.a.	n.a.
1917.....	4,450	1,227	n.a.
1920.....	3,411	1,463	n.a.
1925.....	1,301	428	n.a.
1929.....	921	289	5,352
1930.....	637	183	3,317
1932.....	841	324	10,502
1933.....	1,695	1,168	16,872
1935.....	2,014	1,117	15,456
1939.....	2,613	1,171	17,812
1943.....	3,752	1,981	13,501
1945.....	4,750	3,470	38,025
1949.....	3,606	3,030	50,500
1952.....	5,117	3,540	59,100
1956.....	3,825	1,900	33,100
1957.....	3,673	1,390	16,500
1958.....	3,025	2,065	23,550

n.a. = not available.

Membership of Leading American Labor Unions, 1958

Source: Bureau of Labor Statistics, *Directory of Labor Unions in the United States, 1959*.

Name of Union	Affiliation	No. of Members
Amalgamated Association of Street, Electric Railway and Motor Coach Employees	AFL-CIO	124,637
Amalgamated Clothing Workers	AFL-CIO	376,000
Amalgamated Meat Cutters and Butcher Workmen	AFL-CIO	325,304
American Federation of Musicians	AFL-CIO	262,882
Bricklayers, Masons and Plasterers	AFL-CIO	159,126
Brotherhood of Locomotive Firemen and Enginemen	AFL-CIO	78,412
Brotherhood of Maintenance of Way Employees	AFL-CIO	183,000
Brotherhood of Painters, Decorators and Paperhangers	AFL-CIO	184,502
Brotherhood of Railroad Trainmen	AFL-CIO	200,111
Brotherhood of Railway and Steamship Clerks	AFL-CIO	360,899
Building Service Employees' International Union	AFL-CIO	260,000
Communications Workers of America	AFL-CIO	255,365
Hotel & Restaurant Employees' International Alliance	AFL-CIO	436,315
International Association of Bridge, Structural and Ornamental Iron Workers	AFL-CIO	152,389
International Association of Machinists	AFL-CIO	992,689
International Brotherhood of Boilermakers	AFL-CIO	132,356
International Brotherhood of Electrical Workers	AFL-CIO	750,000
International Brotherhood of Teamsters	Ind.	1,418,246
International Hod Carriers', Building and Common Laborers' Union	AFL-CIO	476,598
International Ladies' Garment Workers' Union	AFL-CIO	442,901
International Typographical Union	AFL-CIO	110,449
International Union of Mine, Mill and Smelter Workers	Ind.	100,000
International Union of Electrical, Radio & Machine Workers	AFL-CIO	278,281
National Association of Letter Carriers	AFL-CIO	110,000
National Federation of Post Office Clerks	AFL-CIO	100,000
Oil, Chemical & Atomic Workers	AFL-CIO	180,175
Retail, Wholesale & Department Store Union	AFL-CIO	160,000
State, County & Municipal Employees	AFL-CIO	200,000
Textile Workers Union	AFL-CIO	197,200
Transport Workers Union	AFL-CIO	135,000
United Association of Plumbers and Steam Fitters	AFL-CIO	255,800
United Automobile, Aircraft & Agricultural Implement Workers	AFL-CIO	1,027,000
United Brotherhood of Carpenters and Joiners	AFL-CIO	835,000
United Electrical, Radio and Machine Workers	Ind.	160,000
United Mine Workers	Ind.	600,000
United Packinghouse Workers	AFL-CIO	157,690
United Papermakers and Paperworkers	AFL-CIO	135,000
United Rubber, Cork, Linoleum and Plastic Workers	AFL-CIO	158,570
United Steelworkers	AFL-CIO	960,000

Wholesale and Retail Trade: No. of Establishments, 1948 and 1954

Source: Bureau of Census, Department of Commerce.

Kind of business group	1948	1954	Kind of business group	1948	1954
Retail trade, total	1,771,317	1,721,650	Tobacco and products (except leaf)	3,019	2,858
Food group	504,902	384,616	Dry goods, apparel	11,733	9,389
Eating and drinking places	346,677	319,657	Furniture, home furnishings	3,813	4,042
General merchandise group	52,741	76,198	Paper and its products	4,044	5,057
Apparel group	115,707	119,743	Farm products—raw materials	2,594	3,853
Furniture, furnishings, appliance group	85,680	91,797	Automotive	14,693	15,540
Automotive group	86,194	85,953	Electrical goods	5,443	7,123
Gasoline service stations	188,301	181,747	Hardware, plumbing, heating	5,901	6,183
Lumber, building, hardware group	99,043	100,519	Lumber, construction materials	5,890	10,314
Drug and proprietary stores	55,903	56,009	Machinery, equipment & supplies	21,430	12,693
Liquor	33,460	31,240	Metals, metalwork (except scrap)	1,803	3,235
Other retail stores	164,174	226,903	Waste materials	7,717	8,139
Wholesale trade, total	243,366	252,318	Other merchant wholesalers	15,688	18,505
Merchant wholesalers, total	146,518	165,153	Manufacturers' sales branches, offices	23,768	22,590
Groceries, confectionery, meats	17,345	29,795	Petroleum bulk stations, terminals	29,451	29,189
Farm products	13,539	3,853	Agents, brokers	24,361	22,131
Beer, wines, distilled spirits	7,195	7,309	Assemblers of farm products	19,268	13,255
Drugs, chemicals, allied products	4,671	4,579			

Retail Sales by Kind of Business Group

(in millions of dollars)

Source: U. S. Bureau of the Census.

Kind of business	1952		1957		1958	
	Amount	%	Amount	%	Amount	%
Durable-goods stores ¹	\$ 55,270	33.7	\$ 68,460	34.3	\$ 63,432	31.6
Automotive group.....	28,337	17.3	38,592	19.3	33,859	16.9
Motor-vehicle, other automotive dealers.....	26,383	16.1	36,300	18.2	31,575	15.7
Tire, battery, accessory dealers.....	1,944	1.2	2,292	1.1	2,284	1.2
Furniture and appliance group.....	8,926	5.4	10,584	5.3	10,323	5.2
Furniture, home furnishings stores.....	5,255	3.2	6,600	3.3	6,637	3.3
Household appliance, radio stores.....	3,671	2.2	3,984	2.0	3,686	1.9
Lumber, building, hardware group.....	10,200	6.2	10,692	5.3	10,809	5.4
Lumber, building-materials dealers.....	7,572	4.6	7,944	4.0	8,154	4.1
Hardware stores.....	2,628	1.6	2,736	1.4	2,655	1.3
Non-durable goods stores ¹	108,815	66.3	131,444	65.7	136,919	68.4
Apparel group.....	10,633	6.5	12,276	6.1	12,558	6.3
Men's and boys' wear stores.....	2,497	1.5	2,484	1.2	2,349	1.2
Women's apparel, accessory stores.....	4,233	2.6	4,920	2.5	4,993	2.5
Family and other apparel stores.....	2,210	1.3	2,784	1.4	2,995	1.5
Shoe stores.....	1,693	1.1	2,088	1.0	2,221	1.1
Drug and proprietary stores.....	4,717	2.9	6,324	3.2	6,600	3.3
Eating and drinking places.....	12,688	7.7	14,796	7.4	14,746	7.4
Food group ¹	39,771	24.2	47,784	23.9	50,263	25.1
Grocery stores.....	32,238	19.6	42,444	21.2	44,546	22.3
Gasoline service.....	9,976	6.1	15,072	7.5	15,758	7.8
General-merchandise group.....	18,694	11.4	21,156	10.6	21,665	10.8
Department stores, excluding mail order.....	10,277	6.3	12,000 ²	6.0	12,561	6.3
Mail order (catalog sales).....	1,339	.8	1,476	0.7	1,550	0.8
Variety stores.....	2,996	1.8	3,528	1.8	3,594	1.8
Other general merchandise stores.....	4,082	2.5	4,152	2.1	3,960	1.9
Liquor stores.....	3,165	1.9	4,212	2.1	4,437	2.2
All retail sales.....	164,085	100.0	200,016	100.0	200,347	100.0

¹ Sales of other durable-goods stores, other food stores and other non-durable goods stores not reported separately but included in totals. ² Estimate.

Wholesale Price Indexes by Major Commodity Groups

(1947-49 = 100)

Source: U. S. Bureau of Labor Statistics.

Commodity	1948	1949	1951	1955	1958	1959*
All commodities.....	104.4	99.2	114.8	110.7	119.2	119.6
Farm products.....	107.3	92.8	113.4	89.6	94.9	90.9
Processed foods.....	106.1	95.7	111.4	101.7	110.9	107.2
Textile products & apparel.....	104.4	95.5	110.6	95.3	93.6	93.8
Hides, skins & leather products.....	102.1	96.9	120.3	93.8	100.6	108.5
Fuel, power & lighting materials.....	107.1	101.9	106.7	107.9	112.7	115.0
Chemicals & allied products.....	103.8	94.8	110.0	106.6	110.4	109.8
Rubber & products.....	102.1	98.9	148.0	143.8	145.3	146.7
Lumber & wood products.....	107.2	99.2	123.9	123.6	117.7	124.1
Pulp, paper & allied products.....	102.9	98.5	119.6	119.3	131.0	132.0
Metals & metal products.....	103.9	104.8	122.8	136.6	150.4	153.7
Machinery & motive products.....	100.9	106.6	119.0	128.4	149.8	152.1
Furniture & other household durables.....	101.4	103.1	114.1	115.9	123.2	123.4
Nonmetallic minerals—structural.....	101.7	104.4	113.6	124.2	136.0	137.7
Tobacco mfs. & bottled beverages.....	100.4	101.6	108.1	121.6	128.2	132.1
Miscellaneous.....	103.1	96.1	104.9	92.0	94.2	97.0

* As of March.

• Sales of Leading Retail Outlets

Source: Moody's Manual of Industrials.

	1958 Sales (in thousands)
DEPARTMENT STORES	
J. C. Penney Co.	\$1,409,973
Federated Department Stores	653,154
Allied Stores Corp	643,778
May Department Stores Co.	540,982
Macy's	456,359
Gimbel Bros., Inc.	384,052
Marshall Field & Co.	217,979

VARIETY STORES	
F. W. Woolworth Co.	\$864,571
W. T. Grant Co.	432,241
S. S. Kresge Co.	384,379
J. J. Newberry Co.	221,873
G. C. Murphy Co.	208,922
S. H. Kress & Co.	159,351
McCrory-McLellan Stores Corp	109,760

GROCERY STORES	
Great Atlantic & Pacific Tea Co.	\$5,094,741
Safeway Stores, Inc.	2,225,352
Kroger Co.	1,776,175
American Stores Co.	874,767
National Tea (Chicago)	794,162

DRUG STORES	
Walgreen Co.	\$ 259,898
Sterling Drug Co.	197,790
Rexall Drug	182,371
People's Drug Store, Inc.	74,895

SHOE STORES	
International Shoe Co.	\$ 244,314
Brown Shoe	239,904
Melville Shoe Co.	136,436
Endicott Johnson Corp.	134,668
Edison Bros. Stores, Inc.	109,120
A. S. Beck Shoe Corp.	75,596

MAIL-ORDER HOUSES	
Sears, Roebuck & Co.	\$3,721,272
Montgomery Ward & Co.	1,092,267
Spiegel, Inc.	134,842

FURNITURE STORES	
Barker Bros. Corp.	\$ 73,178
Reliable Stores Corp.	25,288
Sterchl Bros. Stores, Inc.	17,130

Largest U. S. and Foreign Corporations

(millions of dollars)

Source: Fortune Magazine.

Ten Largest Industrial Corporations

	Sales	Assets ¹
General Motors	\$9,522	\$7,295
Standard Oil (N. J.)	7,544	9,479
Ford Motor	4,130	3,075
General Electric	4,121	2,421
U. S. Steel	3,472	4,633
Socony Mobil Oil	2,886	3,237
Gulf Oil	2,769	3,430
Swift	2,645	585
Texas Co.	2,328	3,112
Western Electric	2,173	1,337

Five Largest Foreign Industrial Corporations

	Sales	Assets ¹
Royal Dutch-Shell (Britain-Holland)	\$5,473	\$7,624
Unilever (Britain- Holland)	3,525	1,926
British Petroleum	1,675	1,589
Imperial Chemical Industries (Britain) ..	1,295	2,027
Nestlé (Switzerland) ...	1,238	173

Five Largest Commercial Banks

	Assets ¹
Bank of America	\$11,291
Chase Manhattan Bank	8,330
First National City Bank	8,088
Manufacturers Trust	3,654
Chemical Corn Exchange Bank	3,594

Five Largest Life Insurance Companies

	Assets ¹
Metropolitan	\$16,282
Prudential	14,732
Equitable Life Assurance	9,298
New York Life	6,707
John Hancock Mutual	5,518

Five Largest Transportation Companies

	Operating Revenues (1958)	Assets ¹
Pennsylvania Railroad ...	\$845	\$2,963
New York Central Railroad	740	2,603
Southern Pacific Trans- portation System	678	2,290
Atchison, Topeka & Santa Fe Railway	595	1,576
Union Pacific Railroad ..	505	1,530

Five Largest Utilities

	Assets ¹
American Tel & Tel	\$19,494
Pacific Gas & Electric	2,291
Consolidated Edison of N. Y.	1,970
Commonwealth Edison (Chicago)	1,580
El Paso Natural Gas (El Paso, Tex.)	1,467

¹ As of Dec. 31, 1958.

Number of Service Establishments and Places of Amusement, 1948 and 1954

Source: U. S. Department of Commerce.

Kind of business	1948	1954	Kind of business	1948	1954
PERSONAL SERVICES:			Bicycle repair shops.....	1,283	561
Barber shops.....	91,993	91,122	Clocksmith shops.....	8,249	5,824
Barber and beauty shops.....	2,591	2,018	Electrical repair shops.....	19,440	32,195
Baths and masseurs.....	1,305	2,265	Jewelry, watch, clock repair.....	12,750	11,246
Beauty parlors.....	74,497	76,544	Leather goods repair.....	560	393
Cleaning and dyeing plants.....	25,534	29,200	Locksmiths and gunsmiths.....	1,518	1,801
Costume and dress suit rental.....	510	515	Musical instrument repair.....	789	2,972
Diaper service.....	384	381	Radio repair.....	12,558	22,824†
Funeral service, crematories.....	18,675	18,387	Refrigerator repair.....	2,531	5,037
Fur repair and storage.....	2,334	1,439	Saw, knife and tool sharpening and repair.....	1,304	2,746
Hat cleaning.....	1,426	947	Typewriter repair.....	638	775
Laundries, all types.....	19,182	30,269	Upholstery, furniture.....	10,297	13,305
Linen supply service.....	1,176	1,371	Welding shops.....	3,536	9,244
Photographic studios.....	14,712	17,293	OTHER SERVICES:		
Rug cleaning and repairing.....	1,517	1,777	Hotels.....	29,650	24,778
Shoe repair shops.....	44,151	26,843	Tourist courts and camps.....	25,919	42,184
Shoe shine parlors.....	2,962	1,595	AMUSEMENT PLACES:		
BUSINESS SERVICES:			Amusement parks, devices and shooting galleries.....	2,153	2,488
Advertising agencies.....	3,279	5,063	Bands, orchestras, entertainers.....	2,026	7,097
Auctioneers.....	670	1,639	Bathing beaches (not municipal)...	261	360
Blueprinting and photostat.....	672	1,019	Billiard and pool parlors.....	9,661	7,639
Coin-operated machine.....	1,302	482	Boat and canoe rental.....	1,587	1,811
Consumer credit reporting.....	2,652	5,220	Bowling alleys.....	4,505	5,062
Detective agencies.....	603	1,123	Clubs, baseball.....	357	271
Disinfecting, exterminating.....	1,393	3,270	Clubs, football.....	21	25
Employment agencies.....	2,231	3,153	Dance halls, studios, schools.....	1,074	2,265
Interior decorating.....	601	2,944	Race tracks, automobile.....	112	454
News syndicates.....	77	467	Race tracks, dog.....	15	145
Outdoor advertising.....	798	1,307	Race tracks, horse.....	71	1,246
Photo finishing laboratories.....	1,703	1,719	Riding academies.....	709	689
Sign painting shops.....	4,283	5,703	Skating rinks.....	1,424	1,799
Telephone answering service.....	367	1,171	Sports promoters, commercial operators.....	6,518	7,799
Window cleaning service.....	1,260	4,231	Swimming pools (not municipal)...	499	652
Window display services.....	279	1,101	Theaters, motion pictures.....	17,689	18,491
REPAIR SERVICES:			Theaters and theatrical producers..	1,426	2,179
Automotive repair services and garages.....	95,544	94,342			
Automobile rentals.....	1,011	2,872*			
Automobile storage, parking.....	8,533	8,572			

* Includes truck rental. † Includes TV repair.

Advertising Expenditures by Medium

Source: Printers' Ink.

Medium	1948		1949		1950		1957		1958	
	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total
Newspapers.....	1,749.6	36.0	1,905.0	36.6	2,063.2	36.3	3,325	32.7	3,120	30.6
Radio.....	617.1	12.7	633.8	12.2	667.1	11.7	648	5.7	616	6.0
Magazines.....	512.7	10.5	492.5	9.5	514.9	9.0	830	8.0	770	7.6
Direct mail.....	689.1	14.2	755.6	14.5	803.2	14.1	1,500	14.3	1,560	15.3
Business papers.....	250.9	5.2	248.1	4.8	251.1	4.4	530	5.0	540	5.3
Outdoor.....	132.1	2.7	131.0	2.5	142.5	2.5	204	2.0	199	2.0
Farm papers*	20.4	.4	20.5	.4	21.2	.4	34	0.4	34	0.3
Television.....	...	...	63.0	1.2	185.0	3.3	1,315	12.3	1,360	13.3
Miscellaneous.....	891.7	18.3	952.7	18.3	1,043.1	18.3	2,046	19.6	1,997	19.6
Total.....	4,863.6	100.0	5,202.2	100.0	5,691.3	100.0	10,432	100.0	10,196	100.0

* Regional farm papers.

Financial Condition of U. S. Life Insurance Companies

(in millions of dollars)

Source: *Spectator Yearbook and Institute of Life Insurance.*

Year	Assets (admitted) Dec. 31	Total income	Premium income	Payment to policyholders*
1910.....	3,876	781	593	387
1920.....	7,320	1,764	1,381	745
1929.....	17,482	4,337	3,343	1,962
1932.....	20,754	4,653	3,495	3,087
1939.....	29,243	5,453	3,776	2,642
1945.....	44,797	7,674	5,159	2,667
1948.....	55,512	9,751	7,157	3,237
1950.....	64,020	11,337	8,189	3,731
1955.....	90,432	16,544	12,546	5,383
1956.....	96,011	17,865	13,584	5,878
1957.....	101,309	19,333	14,775	6,661
1958.....	107,580	20,249	15,471	7,231

* Beginning 1943, data include payments to U. S. residents by domestic and foreign companies.

Life Insurance in Force in U. S.

(in millions of dollars)

Source: *Spectator Yearbook and Institute of Life Insurance.*

Dec. 31	Ordinary	Group	Industrial	Total*
1910.....	11,783	.....	3,125	14,908
1915.....	16,650	100	4,279	21,029
1925.....	52,892	4,247	12,318	69,475
1929.....	75,686	8,994	17,349	102,086
1930.....	78,576	9,801	17,963	106,413
1933.....	70,872	8,681	16,630	96,246
1935.....	70,684	10,208	17,471	98,464
1940.....	79,346	14,938	20,866	115,530
1945.....	101,550	22,172	27,675	151,762
1948.....	131,158	37,068	31,253	201,208
1950.....	149,071	47,793	33,415	234,168
1951.....	159,054	54,398	34,870	253,140
1955.....	216,600	101,300	39,682	372,332
1956.....	240,521	132,000	40,109	412,630
1957.....	264,678	133,794	40,139	458,359
1958.....	287,834	144,607	39,646	493,561

* Includes credit insurance.

Domestic Passenger Traffic by Major Carriers

(in millions of passenger-miles)

Source: Interstate Commerce Commission; Corps of Engineers, U. S. A.; Civil Aeronautics Board; Assn. of American Railroads.

Year	Steam railroads		Buses		Air carriers		Electric Interurban railways		Inland waterways ¹	
	Passenger- miles	% of total	Passenger- miles	% of total	Passenger- miles	% of total	Passenger- miles	% of total	Passenger- miles	% of total
1939.....	22,713	65.0	9,100	26.0	683	2.0	956	2.7	1,486	4.3
1941.....	29,406	62.7	13,100	27.9	1,385	3.0	1,177	2.5	1,821	3.9
1944.....	95,663	74.2	26,920	20.8	2,178	1.7	2,042	1.6	2,187	1.7
1947.....	45,972	58.5	23,948	30.4	6,110	7.8	771	1.0	1,845	2.3
1949.....	35,133	52.8	22,411	33.7	6,753	10.1	842	1.3	1,402	2.1
1953.....	31,679	46.4	19,730	28.9	14,760	21.6	582	0.9	1,487	2.2
1954 ²	29,310	38.4	25,614	33.6	19,568	25.6	157	0.2	1,701	2.2
1956.....	28,216	34.8	25,189	31.0	25,573	31.5	325	0.4	1,860	2.3
1957.....	25,914	31.8	24,998	30.7	28,302	34.7	337	0.4	1,930	2.4
1958 ³	23,300	30.0	23,700	30.5	28,600	36.8	300	0.4	1,800	2.3

¹ Rivers, canals and Great Lakes. ² Preliminary. ³ Estimated.

Domestic Freight Traffic by Major Carriers

(in millions of ton-miles)

Source: Interstate Commerce Commission; Corps of Engineers, U. S. A.; Civil Aeronautics Board; Assn. of American Railroads.

Year	Steam railways ¹		Inland waterways ²		Motor trucks		Oil pipelines		Air carriers ¹	
	Ton- miles	% of total	Ton- miles	% of total	Ton- miles	% of total	Ton- miles	% of total	Ton- miles	% of total
1939.....	336,125	64.22	88,897	16.88	43,931	8.34	55,602	10.56	12	(⁴)
1941.....	480,730	64.68	130,916	17.61	63,258	8.51	68,428	9.20	19	(⁴)
1944.....	745,573	70.14	137,005	12.89	47,395	4.46	132,864	12.50	71	(⁴)
1947.....	663,442	67.51	135,964	13.84	77,918	7.93	105,161	10.70	158	(⁴)
1949.....	533,862	61.17	130,192	14.91	93,653	10.73	114,916	13.16	235	(⁴)
1951.....	654,340	59.05	168,143	15.17	133,160	12.02	152,115	13.73	378	(⁴)
1953.....	613,171	52.55	180,622	15.49	206,808	17.72	165,728	14.30	427	(⁴)
1956.....	655,891	48.2	219,973	16.2	253,751	18.7	229,959	16.9	563	(⁴)
1957.....	626,222	46.3	231,792	17.2	260,856	19.3	232,660	17.2	601	(⁴)
1958 ³	557,000	45.6	187,000	15.3	260,000	21.3	217,000	17.8	600	(⁴)

¹ Includes express and mail. ² Rivers, canals and domestic traffic on Great Lakes. ³ Estimated. ⁴ Negligible.

Farm Income—Estimated Receipts from Major Farm Marketings (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Cotton and cotton-seed	Tobacco	Food grains	Oil-bearing crops	Feed grains and hay	Vegetables	Fruits and nuts	Meat animals	Dairy products	Poultry & eggs
1919.....	2,282	500	1,749	96	1,173	631	597	4,045	1,522	1,106
1929.....	1,511	279	788	85	697	751	582	3,017	1,838	1,187
1932.....	461	115	220	29	247	359	299	1,159	986	562
1939.....	627	271	464	110	485	545	411	2,271	1,346	775
1944.....	1,548	688	1,369	581	1,203	1,510	1,446	5,706	2,938	2,473
1947.....	2,245	1,033	2,768	908	2,328	1,710	1,160	9,340	4,046	2,926
1949.....	2,632	904	2,339	846	2,299	1,641	1,013	8,383	3,778	3,088
1951.....	2,849	1,187	1,896	1,058	1,966	1,670	1,214	11,308	4,290	3,667
1955.....	2,703	1,161	2,312	912	2,323	1,624	1,272	8,868	4,114	3,013
1956.....	2,517	1,163	2,039	1,224	2,561	1,852	1,388	8,246	4,478	3,219
1957.....	1,784	967	1,878	1,154	2,328	1,539	1,415	9,389	4,651	3,001]
1958.....	2,174	1,027	2,485	1,402	2,769	1,578	1,550	10,790	4,547	3,212

Farm Income (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Est. cash income		Government payments	Total cash income
	Crops	Livestock and livestock products		
1919.....	7,645	6,925	...	14,570
1929.....	5,120	6,179	...	11,299
1931.....	2,532	3,837	...	6,369
1935.....	2,957	4,117	573	7,647
1941.....	4,605	6,470	544	11,619
1945.....	9,419	12,001	742	22,162
1946.....	10,835	13,719	772	25,326
1947.....	13,231	16,523	314	30,068
1949.....	12,586	15,426	185	28,197
1950.....	12,575	16,198	283	29,056
1951.....	13,053	19,569	286	32,908
1952.....	14,627	18,498	292	33,417
1953.....	13,797	17,178	213	31,188
1956.....	13,792	16,207	554	30,553
1957.....	12,381	17,376	1,016	30,773
1958.....	14,360	18,846	1,089	34,295

U. S. Farm Index (1910-14 = 100)

Source: U. S. Department of Agriculture.

Year	Prices paid by farmers*	Prices rec'd by farmers†	Parity ratio
1935-39 average..	125	107	86
1945.....	189	206	109
1948.....	259	285	110
1950.....	255	256	100
1952.....	286	288	101
1955.....	281	236	84
1958.....	293	249	85
1959†.....	299	244	82

* Commodities, interest and taxes and wage rates.

† All crops and livestock. ‡ April.

Farm to Retail Price Spreads for Farm Food Products*

Source: U. S. Department of Agriculture.

Year	Retail cost (dollars)	Net farm value (dollars)	Farmer's share of consumer's dollars (%)
Average:			
1913-19.....	361	170	47
1920-24.....	444	181	41
1925-29.....	439	183	42
1933.....	277	90	32
1937.....	363	151	42
1939.....	318	122	38
1945.....	459	246	54
1949.....	939	435	46
1950.....	924	432	47
1953.....	1,002	452	45
1956.....	972	390	40
1957.....	1,007	401	40
1958.....	1,065	427	40
1959†.....	1,043	404	39

* Retail cost of 1935-39 average annual purchases of farm food products by a family of three average consumers; farm value of equivalent quantities sold by producers adjusted for value of by-products. † February.

Farms—Population and Property

Source: U. S. Bureau of the Census.

Item	1930	1940	1950
Farm population (thousands) ..	29,447	29,047	24,335
Number of farms (thousands) ..	6,289	6,097	5,382
Tenancy as % of total.....	42.2	38.7	26.8
All land in farms (million acres)	986	1,061	1,159
Average acreage per farm.....	156.9	174.0	215.3
Value of farm property (millions of dollars)*.....	56,973	41,227	101,738

* Includes land, buildings, livestock, implements and machinery.

Agricultural Output by States, 1958 Crops

Source: U. S. Department of Agriculture.

State	Wheat (1,000 bu.)	Corn (1,000 bu.)	Cotton lint ¹	Potatoes (1,000 cwt.)	Tobacco (1,000 lbs.)	Cattle ² (1,000 head)	Hogs ² (1,000 head)
Alabama.....	2,300	66,848	445	2,661	386	1,816	930
Arizona.....	3,904	1,170	734	1,776		971	35
Arkansas.....	2,340	14,688	928	425		1,493	406
California.....	8,162	17,374	1,610	29,458		3,978	416
Colorado.....	70,236	26,471		13,505		2,159	221
Connecticut.....		2,120		1,353	11,942	155	22
Delaware.....	714	8,580		2,090		65	33
Florida.....		14,924	6	5,977	21,375	2,011	434
Georgia.....	1,633	86,752	351	222	91,598	1,515	1,780
Idaho.....	42,492	4,216		42,848		1,414	119
Illinois.....	54,180	598,920	1	188		4,061	7,106
Indiana.....	40,992	277,389		1,432	11,550	2,107	4,848
Iowa.....	5,586	669,279		540		6,536	12,533
Kansas.....	291,252	73,122		353		4,476	1,067
Kentucky.....	3,948	75,803	3	890	340,922	1,843	1,225
Louisiana.....	672	15,960	296	806	148	1,808	377
Maine.....		451		37,250		192	20
Maryland.....	4,233	27,776		552	33,150	529	195
Massachusetts.....		1,620		1,168	3,955	156	148
Michigan.....	41,800	106,344		8,745		1,829	719
Minnesota.....	25,348	312,448		11,346		3,973	3,815
Mississippi.....	1,904	44,469	963	405		2,363	741
Missouri.....	40,488	180,712	275	720	4,060	4,098	3,956
Montana.....	100,709	3,168		1,472		2,269	147
Nebraska.....	113,450	279,851		2,675		4,961	2,453
Nevada.....	754	220		352		597	21
New Hampshire.....		539		360		97	13
New Jersey.....	1,768	10,608		4,050		213	173
New Mexico.....	3,838	1,457	286	544		1,162	36
New York.....	9,212	33,400		19,797		2,153	129
North Carolina.....	7,614	82,192	258	3,775	753,710	1,014	1,490
North Dakota.....	146,941	33,400		14,700		1,870	410
Ohio.....	46,345	202,560		3,046	17,340	2,367	2,628
Oklahoma.....	115,440	9,000	310	296		3,313	458
Oregon.....	28,000	3,150		9,750		1,497	170
Pennsylvania.....	16,920	82,202		8,596	51,000	1,877	508
Rhode Island.....		282		987		22	11
South Carolina.....	3,124	28,954	298	488	131,100	613	550
South Dakota.....	55,722	105,192		757		3,392	1,591
Tennessee.....	2,660	59,748	414	660	123,120	1,753	1,182
Texas.....	73,040	42,973	4,325	2,285		8,510	1,286
Utah.....	5,586	2,668		1,550		720	83
Vermont.....		3,120		368		423	11
Virginia.....	6,162	40,969	9	3,747	137,519	1,367	670
Washington.....	71,791	3,990		10,610		1,178	140
West Virginia.....	770	8,305		780	3,680	541	110
Wisconsin.....	2,071	140,962		7,051	21,255	4,254	1,801
Wyoming.....	8,120	1,830		876		1,140	44
Total.....	1,462,218	3,799,844	11,512	263,782	1,757,810	96,851	57,201

¹ Thousands of 500 lb. bales. ² Number on farms as of Jan. 1, 1959.

Domestic Animals on Farms, Number and Value

Source: U. S. Department of Agriculture.

January 1:	Number (thousands)							Value of domestic animals (millions of dollars)
	Horses & Mules	Cattle	Dairy cows	Sheep	Swine	Chickens	Turkeys	
1945.....	11,950	85,573	27,770	46,520	59,373	516,497	7,082	11,707
1951.....	7,036	82,083	23,722	30,635	62,852	442,657	5,091	22,165
1953.....	5,403	94,241	24,094	31,861	54,294	429,731	5,305	19,477
1957.....	3,574	94,502	22,916	30,840	51,703	390,137	5,799	11,132
1958.....	3,354	93,350	22,233	31,337	50,980	370,884	5,542	14,070
1959.....	3,079	96,851	21,606	32,644	57,201	383,257	5,861	18,111

Regional Economic Differences

Source: U. S. Depts. of Commerce and Labor and *Sales Management*, American Telephone and Telegraph Co. and Edison Electric Institute.

State	1950 % of employed in Agri- Manufac- culture turing		Income received per capita, 1958†	% increase per capita income received 1929-58	Est. retail sales* (\$ millions, 1958)‡	% distribution of electric customers, Jan. 1, 1959	% households with telephone service, Jan. 1, 1959
New England.....	.....	.....	.....	.....	12,799	6.26	90
Maine.....	9.3	34.2	\$1,704	184	1,069	0.62	71
New Hampshire.....	6.5	40.4	1,885	173	677	0.41	79
Vermont.....	18.2	24.6	1,754	178	438	0.24	76
Massachusetts.....	1.8	37.4	2,394	162	6,383	3.01	94
Rhode Island.....	1.5	44.0	1,966	126	967	0.51	82
Connecticut.....	2.9	42.6	2,817	174	3,265	1.47	99
Middle Atlantic.....	.....	.....	.....	.....	40,815	19.50	88
New York.....	2.9	29.8	2,585	123	21,117	9.64	89
New Jersey.....	2.5	37.7	2,521	171	7,299	3.53	93
Pennsylvania.....	4.1	35.5	2,127	174	12,399	6.33	85
East North Central.....	.....	.....	.....	.....	42,384	20.53	82
Ohio.....	6.9	36.6	2,184	180	11,043	5.41	83
Indiana.....	11.6	34.8	1,990	225	5,143	2.71	78
Illinois.....	7.1	32.0	2,435	154	12,567	5.63	84
Michigan.....	6.7	40.9	2,099	165	9,032	4.45	81
Wisconsin.....	18.6	30.6	1,936	184	4,598	2.33	81
West North Central.....	.....	.....	.....	.....	18,347	9.06	81
Minnesota.....	22.1	16.3	1,916	220	3,972	1.93	87
Iowa.....	28.5	15.2	1,863	223	3,464	1.67	86
Missouri.....	17.5	21.8	2,037	224	5,073	2.54	76
North Dakota.....	44.2	2.9	1,697	353	782	0.35	64
South Dakota.....	40.5	4.9	1,641	294	805	0.39	70
Nebraska.....	29.6	9.2	1,894	221	1,823	0.86	83
Kansas.....	23.0	12.6	2,001	274	2,427	1.32	82
South Atlantic.....	.....	.....	.....	.....	26,153	13.44	66
Delaware.....	8.8	32.4	2,760	171	614	0.24	83
Maryland.....	6.1	24.9	2,221	186	3,285	1.55	80
D. C.....	0.2	7.3	2,634	107	1,332	0.34	84
Virginia.....	14.6	20.5	1,674	285	3,678	1.95	68
West Virginia.....	9.8	18.9	1,509	227	1,664	1.03	61
North Carolina.....	24.6	27.9	1,384	314	3,932	2.34	56
South Carolina.....	26.1	27.9	1,218	351	1,743	1.17	50
Georgia.....	21.2	23.0	1,487	325	3,628	2.04	60
Florida.....	12.2	10.7	1,876	260	6,276	2.78	74
East South Central.....	.....	.....	.....	.....	9,649	6.28	56
Kentucky.....	25.7	15.8	1,397	257	2,426	1.60	56
Tennessee.....	21.8	21.1	1,439	282	3,099	1.93	65
Alabama.....	24.3	21.8	1,359	319	2,655	1.70	56
Mississippi.....	42.1	12.6	1,053	269	1,469	1.05	42
West South Central.....	.....	.....	.....	.....	17,492	9.35	66
Arkansas.....	35.0	13.8	1,228	303	1,490	1.00	49
Louisiana.....	17.3	15.1	1,576	280	2,825	1.68	69
Oklahoma.....	20.5	9.8	1,740	283	2,439	1.41	74
Texas.....	16.0	13.5	1,814	279	10,739	5.26	67
Mountain.....	.....	.....	.....	.....	8,044	3.63	71
Montana.....	24.8	8.5	1,920	221	877	0.40	76
Idaho.....	26.8	9.2	1,701	238	815	0.39	75
Wyoming.....	20.5	6.0	2,088	208	446	0.19	72
Colorado.....	15.1	12.2	2,047	221	2,221	1.01	81
New Mexico.....	18.4	5.9	1,838	352	955	0.44	59
Arizona.....	14.7	8.8	1,932	227	1,379	0.61	59
Utah.....	12.4	12.2	1,753	214	903	0.44	80
Nevada.....	10.5	5.1	2,569	193	446	0.15	59
Pacific.....	.....	.....	.....	.....	25,121	11.95	82
Washington.....	9.3	21.2	2,160	188	3,289	1.69	80
Oregon.....	12.1	22.7	2,006	194	2,149	1.07	72
California.....	7.3	19.6	2,559	157	19,684	9.19	83
Total.....	12.2	25.9	2,057	193	200,806	100.00	78

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Source: U. S. Treasury Department.

Receipts and Expenditures of the National Government (in millions of dollars)

Yearly average or year ended June 30	Receipts					Expenditures					Surplus (+) or deficit (-)	
	Customs (including tonnage tax) ¹	Internal revenue		Other receipts	Total receipts	Net receipts ²	Department of the Army ²	Department of the Navy	Interest on public debt	All other		Total expendi- tures ⁴
		Income and profits tax	Other									
1789-1800.....	6	.....	.....	.....	7	7	2	.....	3	1	6	.....
1801-1810.....	12	.....	.....	.....	13	13	2	.....	4	2	2	.....
1811-1820.....	16	.....	2	.....	21	21	11	.....	5	3	24	.....
1821-1830.....	20	.....	.....	.....	22	22	4	.....	4	5	16	.....
1831-1840.....	20	.....	.....	.....	30	30	8	.....	.....	.....	24	.....
1841-1850.....	24	.....	.....	.....	27	27	13	.....	.....	.....	32	.....
1851-1860.....	54	.....	.....	.....	60	60	16	.....	.....	.....	60	.....
1861-1865.....	69	17	55	.....	161	161	548	.....	35	36	684	.....
1866-1870.....	179	51	171	46	447	447	128	.....	135	86	377	.....
1871-1875.....	186	8	113	30	337	337	40	.....	112	112	287	.....
1876-1880.....	146	.....	.....	25	288	288	37	.....	100	102	255	.....
1881-1885.....	202	.....	132	33	367	367	43	.....	64	135	258	.....
1886-1890.....	216	.....	127	32	375	375	40	.....	44	177	279	.....
1891-1895.....	177	.....	150	26	353	353	50	.....	30	255	364	.....
1896-1900.....	185	.....	207	43	435	435	111	.....	38	260	457	.....
1901-1905.....	260	.....	255	56	628	628	169	.....	28	288	535	.....
1906-1910.....	311	4	257	56	698	698	202	.....	23	334	639	.....
1915.....	210	80	336	72	698	698	202	.....	190	394	761	.....
1918.....	180	2,314	872	299	3,665	3,665	4,870	.....	230	6,358	12,697	.....
1919.....	602	2,331	607	493	4,033	4,033	426	.....	678	1,830	3,299	.....
1920.....	251	746	858	225	2,021	2,021	349	.....	689	3,150	4,623	.....
1923.....	486	2,163	2,972	211	5,294	4,979	628	.....	866	5,705	7,756	.....
1924.....	319	2,189	2,972	188	5,668	5,104	695	.....	941	8,966	8,966	.....
1925.....	324	16,094	6,050	934	23,402	22,202	42,526	.....	1,808	14,400	79,622	.....
1926.....	355	35,173	8,729	3,493	47,750	44,762	50,490	.....	3,617	14,549	98,703	.....
1927.....	494	29,305	10,074	4,635	44,508	40,443	50,490	.....	4,958	19,562	39,289	.....
1928.....	384	29,482	11,866	2,082	42,773	38,246	50,490	.....	5,597	19,562	40,057	.....
1929.....	423	28,263	11,186	1,439	41,311	37,045	50,490	.....	5,339	20,730	40,167	.....
1930.....	624	37,753	13,354	1,639	53,369	48,143	50,490	.....	5,750	20,977	44,633	.....
1931.....	551	51,347	14,288	1,814	67,999	62,129	50,490	.....	5,613	20,977	44,633	.....
1932.....	513	54,073	15,808	1,864	72,649	66,825	50,490	.....	5,859	19,750	66,145	.....
1933.....	562	53,906	16,394	2,311	73,173	64,655	50,490	.....	6,503	23,756	74,274	.....
1934.....	705	56,632	18,476	3,006	78,820	68,165	50,490	.....	6,382	20,913	66,540	.....
1935.....	754	60,560	19,612	2,749	83,675	71,029	50,490	.....	7,687	23,986	69,433	.....
1936.....	800	59,102	20,877	3,196	83,974	69,117	50,490	.....	7,607	25,203	71,936	.....
1937.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1938.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1939.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1940.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1941.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1942.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1943.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1944.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1945.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1946.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1947.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1948.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1949.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1950.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1951.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1952.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1953.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1954.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1955.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1956.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1957.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1958.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

¹ Beginning 1932, tonnage tax incl. in "Other receipts." ² Net receipts equal total receipts less (a) appropriations to Federal old-age and survivors' insurance trust fund beginning fiscal year 1937 and (b) refunds of receipts beginning fiscal year 1931. ³ Formerly War Department. ⁴ Includes Air Force; 1946—\$1,680,469,724; 1950—\$3,520,632,580; 1951—\$6,358,603,828; 1952—\$12,851,619,343; 1953—\$15,086,227,952; 1954—\$15,668,473,393; 1955—\$16,749,647,622; 1956—\$18,361,000,000; 1957—\$18,361,000,000; 1958—\$18,361,000,000.

Money and Interest Rates

(Per cent per annum)

Source: Federal Reserve Board.

Year	Open market rate in New York City			Commercial loan rates		
	Prime commercial paper, 4 to 6 months*	Prime bankers' acceptances, 90 days*	Call loans, renewal rate†	New York City	7 other northern & eastern cities	11 southern & western cities
1929.....	5.85	5.03	7.61	5.76	5.82	5.93
1932.....	2.73	1.28	2.05	4.20	4.81	5.21
1933.....	1.73	.63	1.16	3.43	4.46	5.04
1935.....	.76	.13	.56	1.76	3.39	3.76
1938.....	.81	.44	1.00	1.69	2.75	3.26
1941.....	.54	.44	1.00	1.97	2.55	3.19
1945.....	.75	.44	1.00	1.99	2.51	2.73
1947.....	1.03	.87	1.38	1.81	2.33	2.76
1949.....	1.48	1.12	1.63	2.37	2.71	3.10
1951.....	2.17	1.60	2.17	2.83	3.09	3.52
1953.....	2.52	1.88	3.06	3.47	3.68	4.04
1956.....	3.31	2.64	4.20	4.00	4.25	4.38
1957.....	3.81	3.45	4.38	4.47	4.63	4.83
1958.....	2.46	2.04	3.38	4.12	4.34	4.67
1959†.....	3.50	3.13	4.18§	4.29||	4.49||	4.84||

* Prevailing rate. † New York Stock Exchange; average of daily quotations. ‡ Week ending May 2. § Week ending June 17. || March.

U. S. Money in Circulation by Denomination¹

(in millions of dollars)

Source: U. S. Treasury Department.

Denomination	1939	1940	1943	1945	1950	1951	1952	1953	1957	1958
Coin.....	590	648	1,019	1,274	1,554	1,654	1,750	1,812	1,789	2,182
\$12.....	559	610	909	1,039	1,113	1,182	1,228	1,249	1,302	1,494
\$2.....	36	39	70	73	64	67	71	72	77	83
\$5.....	1,019	1,129	1,973	2,313	2,049	2,120	2,143	2,119	2,102	2,186
\$10.....	1,772	2,021	5,194	6,782	5,998	6,329	6,561	6,565	6,615	6,624
\$20.....	1,576	1,800	5,705	9,201	8,529	9,177	9,696	9,819	9,985	10,288
\$50.....	460	538	1,481	2,327	2,422	2,544	2,669	2,732	2,696	2,792
\$100.....	919	1,112	2,912	4,220	5,043	5,207	5,447	5,581	5,575	5,886
\$500.....	191	227	407	454	368	355	343	333	283	275
\$1,000.....	425	523	749	801	588	556	512	486	391	373
\$5,000.....	20	30	9	7	4	4	4	4	3	3
\$10,000.....	32	60	22	24	12	12	10	11	9	9
Total ²	7,598	8,732	20,449	28,515	27,741	29,206	30,433	30,781	31,082	32,193

¹ End of year. ² Paper currency only: \$1 silver coins reported under coin. ³ Includes unassorted currency.

Public Debt of the United States

Source: U. S. Treasury Department.

June 30—	Gross debt		June 30—	Gross debt	
	Amount (in millions of dollars)	Per capita (dollars)		Amount (in millions of dollars)	Per capita (dollars)
1800*.....	\$ 83	\$ 15.87	1945.....	\$ 258,682	\$ 1,848.60
1860.....	65	2.06	1947.....	258,286	1,792.05
1865.....	2,678	75.01	1950.....	257,357	1,696.75
1900.....	1,263	16.60	1951.....	255,222	1,653.42
1915.....	1,191	11.85	1952.....	259,105	1,650.12
1920.....	24,299	228.23	1953.....	266,071	1,666.81
1929.....	16,931	139.04	1954.....	271,260	1,670.23
1932.....	19,487	156.10	1955.....	274,374	1,660.38
1935.....	28,701	225.55	1956.....	276,200	1,624.71
1937.....	36,425	282.75	1957.....	270,527	1,582.00
1939.....	40,440	308.98	1958.....	275,400	1,588.47
1943.....	136,696	999.83	1959 (Apr. 30).....	285,500	1,640.77

* Figures for 1800 are as of Jan. 1.

U. S. Exports of Leading Commodities

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Commodity	1957	1958
Crude materials:	\$ 3,110	\$ 2,137
Coal.....	830	526
Cotton, unmanufactured.....	1,049	656
Tobacco, unmanufactured.....	359	354
Soybeans.....	218	198
Crude petroleum.....	173	15
Foodstuffs:	2,495	2,382
Grains and preparations.....	1,370	1,298
Wheat, including flour.....	847	685
Corn.....	251	235
Fruits and vegetables.....	360	381
Meats and edible animal fats.....	190	137
Dairy products and eggs.....	121	101
Manufactures, including semimanufactures:	15,065	13,175
Excluding type I and II special category items ²	13,085	11,108
Machinery.....	4,005	3,661
Electrical machinery and apparatus.....	819	794
Industrial machinery, total.....	2,502	2,262
Construction and mining machinery.....	894	695
Engines, turbines and parts.....	236	226
Metal working and machine tools.....	314	339
Tractors, parts and accessories.....	380	311
Automobiles, parts and accessories.....	1,309	1,083
Motor trucks and busses, commercial, new.....	434	294
Passenger automobiles, commercial, new.....	301	258
Chemicals and related products.....	1,335	1,303
Medicinal and pharmaceutical preparations.....	285	278
Chemical specialties.....	495	493
Industrial chemicals.....	221	215
Iron and steel-mill products, including scrap.....	1,320	659
Textile manufactures.....	667	600
Cotton cloth, including duck ¹	148	136
Broad woven fabrics of synthetic fibers ¹	82	74
Metal manufactures.....	517	480
Nonferrous metals and ferroalloys.....	398	320
Rubber manufactures.....	300	278
Paper and manufactures.....	221	220
Including type II, but excluding type I special category items ²	14,610	12,668
Machinery.....	4,215	3,874
Electrical machinery and apparatus.....	1,030	1,007
Automobiles, parts and accessories.....	1,479	1,300
Chemicals and related products.....	1,354	1,323
Aircraft, parts and accessories.....	1,029	973
Petroleum products.....	820	542
Motor fuel and gasoline and jet fuel.....	194	131
Lubricating oils.....	193	185
Rubber manufactures.....	302	280
Small arms and ammunition.....	248	264

¹ Excludes tire, pile, upholstery and drapery fabrics, and remnants. ² Special category includes commodities for which detailed export statistics are restricted, for security reasons.

U. S. Imports of Leading Commodities

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Commodity	1957	1958
Crude materials:	\$ 3,211	\$ 2,785
Crude petroleum.....	980	943
Nonferrous ores and concentrates ¹	512	379
Manganese ore.....	100	80
Copper ore and concentrates.....	66	46
Zinc bearing ores.....	89	52
Lead ore and flue dust.....	62	53
Crude rubber.....	350	248
Iron ore.....	286	232
Wool, unmanufactured.....	211	165
Diamonds, rough, uncut, industrial.....	128	112
Tobacco, unmanufactured.....	97	108
Undressed furs.....	79	82
Other.....	568	516
Foodstuffs:	3,292	3,459
Coffee.....	1,376	1,172
Cane sugar.....	459	523
Fruits, edible nuts and vegetables.....	262	281
Fish, including shellfish.....	255	280
Whiskey and distilled spirits.....	168	180
Cocoa or cacao beans.....	135	173
Meat products.....	184	337
Grains and preparations.....	85	67
Other.....	368	446
Semimanufactures:	2,920	2,660
Nonferrous metals ²	1,060	721
Copper.....	284	167
Tin.....	130	91
Aluminum.....	128	141
Nickel metal and oxide.....	202	123
Lead.....	95	80
Zinc.....	64	36
Gas oil and fuel oil.....	496	506
Sawmill products.....	243	264
Woodpulp.....	273	277
Diamonds, cut, but not set.....	65	68
Iron and steel semimanufactures.....	57	90
Industrial chemicals.....	70	72
Fertilizer materials.....	60	59
Other.....	596	603
Finished manufactures:	3,527	3,910
Paper and manufactures.....	718	676
Newsprint.....	657	615
Textile manufactures.....	553	554
Burlaps.....	81	76
Cotton manufactures.....	136	150
Wool manufactures.....	143	131
Fabrics of wool and mohair.....	59	59
Machinery, total.....	424	472
Agricultural implements and tractors.....	80	122
Vehicles and parts.....	435	680
Automobiles, new ³	301	489
Aircraft.....	53	79
Steel-mill manufactures.....	176	162
Clocks, watches and parts.....	75	60
Iron and steel advanced manufactures.....	78	77
Other.....	1,068	1,229

¹ Includes ores of ferroalloying metals. ² Includes ferroalloys. ³ Trucks and busses excluded.

U. S. Exports and General Imports by Countries and Areas

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Area and country	Exports, including re-exports ¹			General imports		
	1949	1957	1958	1949	1957	1958
Total.....	11,936.0	20,850.3	17,857.9	6,592.0	12,982.3	12,829.7
Canada.....	1,925.5	3,912.5	3,417.8	1,550.8	2,906.9	2,687.3
20 American Republics.....	2,632.9	4,567.3	4,049.9	2,301.0	3,764.4	3,589.2
Western Europe.....	3,973.0	5,697.1	4,463.2	909.0	3,077.5	3,287.9
Other Areas.....	3,404.6	6,673.4	5,927.0	1,831.2	3,233.5	3,265.3
NORTH AND SOUTH AMERICA						
	(Excluding special categories) ¹					
Canada.....	1,925.5	3,912.5	3,417.8	1,550.8	2,906.9	2,687.3
20 American Republics.....	2,632.9	4,567.3	4,049.9	2,301.0	3,764.4	3,589.2
Mexico.....	454.4	903.7	885.5	243.5	430.1	457.7
Central American Republics.....	257.1	345.1	322.3	139.0	229.6	223.6
Costa Rica.....	26.2	48.2	41.8	22.4	27.5	36.0
El Salvador.....	24.8	50.1	44.6	40.2	55.6	48.5
Guatemala.....	43.7	81.2	78.9	43.3	73.7	66.1
Honduras.....	32.7	41.9	35.7	15.2	26.1	27.8
Nicaragua.....	14.8	39.1	37.5	6.7	22.3	21.1
Panama, Republic of.....	114.9	84.5	83.9	11.2	24.3	24.1
Cuba.....	374.9	618.0	545.9	387.5	481.9	528.0
Dominican Republic.....	36.9	74.1	75.9	24.4	63.1	72.1
Haiti.....	23.3	24.3	25.0	19.8	18.3	22.9
Argentina.....	123.5	284.4	249.0	97.5	129.3	132.7
Bolivia.....	34.6	34.4	29.0	48.5	16.9	8.9
Brazil.....	365.0	484.4	529.7	551.8	699.7	565.8
Chile.....	138.5	194.9	148.9	152.5	195.8	155.7
Colombia.....	167.9	241.8	184.9	241.5	383.7	332.9
Ecuador.....	31.0	50.7	46.8	17.1	58.0	56.2
Paraguay.....	7.5	11.2	10.2	5.7	6.6	7.5
Peru.....	81.9	198.7	166.8	40.2	138.0	124.0
Uruguay.....	33.4	48.7	21.6	54.0	17.9	8.7
Venezuela.....	503.0	1,053.1	808.5	278.1	900.0	892.3
Netherlands Antilles.....	75.2	84.4	74.6	111.4	273.4	316.8
EUROPE						
Western Europe.....	3,973.0	5,697.1	4,463.2	909.0	3,077.5	3,287.9
Austria.....	149.7	68.2	57.3	9.6	37.1	41.0
Belgium and Luxemburg.....	300.9	419.7	329.5	94.2	270.4	269.9
Denmark.....	91.1	87.7	78.5	6.6	73.7	84.6
France.....	465.6	589.3	427.2	61.5	256.0	302.4
Germany, Western ²	817.3	956.7	733.6	45.5	606.6	635.6
Greece.....	152.2	86.1	72.6	15.7	35.1	37.2
Iceland.....	7.4	10.2	11.4	2.2	6.7	10.4
Ireland.....	60.7	21.7	31.0	1.7	8.7	16.4
Italy.....	451.3	664.3	487.2	70.9	245.0	275.1
Trieste.....	11.8	13.4	5.2	....	0.5	0.9
Netherlands.....	268.1	554.9	442.0	59.3	168.4	189.8
Norway.....	87.9	85.5	69.3	30.7	63.3	74.8
Portugal.....	50.6	46.3	30.9	13.6	22.3	22.3
Sweden.....	81.0	231.8	195.1	54.4	118.7	125.4
Switzerland.....	137.7	238.8	163.5	93.1	173.2	157.1
Turkey.....	82.9	139.9	127.0	55.7	92.4	56.1
United Kingdom.....	662.0	1,100.9	837.7	227.6	765.7	868.2
Other Western Europe, Total.....	94.8	380.7	364.2	66.6	133.7	120.7
Finland.....	26.0	34.0	33.5	27.4	40.0	36.0
Spain.....	49.2	203.7	214.7	24.3	58.3	55.4
Yugoslavia.....	19.6	144.0	115.2	14.9	35.4	29.5
Soviet Bloc.....	61.8	86.1	112.6	67.4	61.3	63.6
ASIA AND OCEANIA						
Western Asia.....	335.5	406.6	419.6	94.7	262.4	350.5
Iran.....	77.1	82.7	105.9	16.4	32.9	42.1
Iraq.....	12.2	40.1	32.1	5.7	29.1	30.1
Israel ³	76.8	97.1	104.5	6.0	20.1	18.2
Kuwait.....	22.3	38.8	42.6	38.8	112.2	167.1
Lebanon.....	39.7	40.2	36.1	2.1	4.5	3.8

Area and country	Exports, including re-exports ¹			General imports		
	1949	1957	1958	1949	1957	1958
Saudi Arabia.....	81.6	68.9	58.6	19.9	41.0	72.2
Far East.....	1,823.7	3,248.2	2,461.3	1,214.5	1,938.4	1,855.8
Southern, Southeastern and Eastern Asia.....	1,650.1	2,968.7	2,218.1	1,089.1	1,722.1	1,646.7
Malaya, Federation of.....	36.2	43.1	35.4	195.5	191.5	127.5
Ceylon.....	17.1	13.3	21.8	34.8	32.4	27.1
Hong Kong.....	113.6	78.0	71.8	4.3	34.0	51.8
India.....	240.4	439.3	312.6	238.8	210.9	191.1
Indonesia, Republic of.....	119.4	110.2	61.2	120.4	200.3	171.7
Japan.....	466.1	1,234.0	833.6	82.0	600.5	670.8
Korea, Republic of ²	49.9	277.5	216.1	1.4	3.9	2.4
Pakistan.....	41.0	115.4	112.0	27.7	39.6	26.9
Philippines, Republic of.....	424.9	369.3	291.4	204.7	262.1	274.0
Thailand (Siam).....	28.9	68.2	52.3	48.0	85.7	57.2
Taiwan.....	22.7	106.4	101.9	1.7	8.9	10.8
Vietnam, Laos and Cambodia.....	16.2	78.9	69.1	1.1	22.6	14.2
Australia.....	124.4	212.6	189.9	97.6	146.9	94.7
New Zealand.....	40.1	53.8	43.3	24.4	65.1	110.7
AFRICA						
Africa, Total.....	590.8	683.3	615.4	337.5	586.9	560.9
Algeria.....	22.1	27.5	27.7	4.1	1.5	0.8
Angola.....	8.4	15.0	11.7	7.2	40.6	37.2
Belgian Congo.....	46.5	58.5	39.1	36.3	103.7	95.0
British East Africa, Total ³	16.8	9.3	9.2	22.4	45.5	47.8
Egypt.....	50.0	40.1	51.9	9.4	17.0	17.8
Ethiopia.....	3.4	5.4	10.7	8.3	32.6	28.6
Morocco.....	27.8	47.4	41.4	5.8	10.5	8.2
French West Africa, Total.....	33.2	34.0	26.8	2.4	33.1	40.1
Liberia.....	51.5	59.6	53.4	10.8	38.3	33.1
Rhodesia, Nyasaland, Federation of.....	9.6	20.1	11.7	15.3	52.4	32.3
Union of South Africa ⁴	257.4	284.8	248.6	116.4	101.0	99.3
All sterling countries.....	1,760.1	2,697.5	2,235.8	1,156.0	2,005.6	2,121.8

¹ "Special category" exports not available by country of destination. ² Germany prior to 1952. ³ Israel included Palestine prior to 1954. ⁴ The Republic and North Korea prior to 1952. ⁵ British Somaliland, Seychelles, and Mauritius and dependencies, and other British East Africa. ⁶ Cameroun, French Equatorial Africa, and other French West Africa.

Balance of Payments of the U. S., 1949-1958 (in millions of dollars)

Source: Department of Commerce, Office of Business Economics.

Item	1949	1950	1951	1952	1954	1957	1958
Exports of goods and services, total.....	16,061	14,427	20,333	20,708	21,110	29,168	25,721
Military transfers under aid programs..	210	526	1,470	2,603	3,161	2,435	2,522
Other goods and services, total.....	15,851	13,901	18,863	18,105	17,949	26,733	23,199
Merchandise, adjusted (excl. military expenditures).....	12,149	10,117	14,123	13,319	12,799	19,390	16,227
Transportation.....	1,238	1,033	1,556	1,488	1,171	1,999	1,650
Travel.....	392	419	473	550	595	785	825
Income on investments.....	1,395	1,593	1,882	1,828	2,227	2,881	2,922
Other services.....	677	739	829	920	1,157	1,306	1,279
Imports of goods and services.....	9,702	12,098	15,142	15,760	16,088	20,923	20,951
Merchandise, adjusted (excl. military expenditures).....	6,879	9,108	11,202	10,838	10,354	13,291	12,946
Transportation.....	700	818	974	1,115	1,026	1,569	1,599
Travel.....	700	754	757	840	1,009	1,372	1,460
Military expenditures.....	621	576	1,270	1,957	2,603	3,165	3,416
Other services.....	802	842	939	1,010	1,096	1,526	1,530
Balance on goods and services.....	6,359	2,329	5,191	4,948	5,022	8,245	4,770
Net unilateral transfers to foreign countries (-).....	-5,837	-4,533	-4,962	-5,108	-5,423	-4,753	-4,840
Military supplies and services.....	-210	-526	-1,470	-2,630	-3,161	-2,435	-2,522
Grants and other government transfers.....	-5,106	-3,563	-3,106	-2,088	-1,776	-1,775	-1,793
Private remittances.....	-521	-444	-386	-417	-486	-543	-525
Direct investment [outflow of funds (-)].....	-660	-621	-528	-850	-664	-2,072	-1,135
Other U. S. capital.....	-545	-800	-696	-728	-862	-2,102	-2,752
Foreign long-term capital [outflow (+)].....		53	182	141	244	634	1,154
Increase or decrease (-) in foreign gold and liquid dollar assets.....	-92	3,602	343	1,092	1,516	-798	2,275
Errors and omissions.....	775	-30	470	505	167	876	381

Loans of the International Bank (in millions of dollars)

Source: International Bank for Reconstruction and Development.

Country	No. of loans	Original amount	Net amount ²	Country	No. of loans	Original amount	Net amount ²
Africa: Algeria.....	1	\$ 10.0	\$ 10.0	Europe (contd.): Finland ..	7	\$ 102.3	\$ 102.1
Belgian Congo.....	2	80.0	80.0	France.....	1	250.0	250.0
East Africa.....	1	24.0	24.0	Iceland.....	5	5.9	5.9
Ethiopia.....	4	23.5	23.5	Italy.....	6	259.6	258.0
French West Africa.....	1	7.5	7.1	Luxemburg.....	1	12.0	11.8
Gabon.....	1	35.0	35.0	Netherlands.....	10	244.0	236.5
Nigeria.....	1	28.0	28.0	Norway.....	3	75.0	75.0
Rhodesia & Nyasaland.....	4	141.0	141.0	Turkey.....	6	63.4	60.7
Ruanda-Urundi.....	1	4.8	4.8	Yugoslavia.....	3	60.7	60.7
Sudan.....	1	39.0	39.0	Western Hemisphere:			
Union of South Africa.....	8	196.8	196.8	Brazil.....	13	292.1 ³	267.1
Asia: Burma.....	2	19.4	19.4	Chile.....	7	74.1	73.7
Ceylon.....	2	26.5	24.8	Colombia.....	14	130.7	130.6
India.....	21	550.6	532.1	Costa Rica.....	2	6.5	6.5
Iran.....	2	147.0	147.0	Ecuador.....	6	46.6	45.6
Iraq.....	1	12.8	6.3	El Salvador.....	4	31.6	31.6
Japan.....	16	258.9	253.8	Guatemala.....	1	18.2	18.2
Lebanon.....	1	27.0	27.0	Haiti.....	1	2.6	2.6
Malaya.....	1	35.6	35.6	Honduras.....	3	11.2	11.2
Pakistan.....	9	126.5	126.5	Mexico.....	8	205.8 ⁴	186.3
Philippines.....	1	21.0	18.5	Nicaragua.....	10	23.0	23.0
Thailand.....	6	106.8	106.7	Panamá.....	3	7.4	6.8
Australasia: Australia.....	6	317.7	317.7	Paraguay.....	1	5.0	4.5
Europe: Austria.....	7	92.3	90.9	Peru.....	10	62.6	62.5
Belgium.....	4	76.0	76.0	Uruguay.....	3	64.0	64.0
Denmark.....	2	60.0	60.0	Total.....	234	\$4,522.0	\$4,426.1

¹ As of June 30, 1959. ² With cancellations and refundings deducted. ³ Including one loan of \$25 million, subsequently canceled. ⁴ Including one loan of \$10 million, subsequently refunded.

Par Values of Member Currencies¹

Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar	Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar
Australia.....	Pound	224.000	0.446 429	Indonesia.....	Rupiah	(3)	(3)
Austria.....	Schilling	3.846 15	26.000 0	Iran.....	Rial	1.320 13	75.750 0
Belgium.....	Franc	2.000 00	50.000 0	Iraq.....	Dinar	280.000	0.357 143
Bolivia.....	Boliviano	(*)	(*)	Israel.....	Pound	55.555 6	1.800 00
Brazil.....	Cruzeiro	5.405 41	18.500 0	Italy.....	Lira	(3)	(3)
Burma.....	Kyat	21.000 0	4.761 90	Japan.....	Yen	0.277 778	360.000
Canada ²	Dollar			Jordan.....	Dinar	280.000	0.357 143
Ceylon.....	Ruppee	21.000 0	4.761 90	Korea.....	Hwan	(3)	(3)
Chile.....	Peso	0.909 091	110.000	Lebanon.....	Pound	45.631 3	2.191 48
China.....	Yuan	(3)	(3)	Luxemburg.....	Franc	2.000 00	50.000 0
Colombia.....	Peso	51.282 5	1.949 98	Mexico.....	Peso	8.000 00	12.500 0
Costa Rica.....	Colón	17.809 4	5.615 00	Netherlands.....	Guilder	26.315 8	3.800 00
Cuba.....	Peso	100.000	1.000 00	Nicaragua.....	Córdoba	14.2857	7.000 00
Denmark.....	Krone	14.477 8	6.907 14	Norway.....	Krone	14.000 0	7.142 86
Dominican Republic.....	Peso	100.000	1.000 00	Pakistan.....	Ruppee	21.000 0	4.761 90
Ecuador.....	Sucre	6.666 67	15.000 0	Panamá.....	Balboa	100.000	1.000 00
Egypt.....	Pound	287.156	0.348 242	Paraguay.....	Guaraní	1.666 67	60.000 0
El Salvador.....	Colón	40.000 0	2.500 00	Peru.....	Sol	(4)	(4)
Ethiopia.....	Dollar	40.250 0	2.484 47	Philippines.....	Peso	50.000 0	2.000 00
Finland.....	Markka	0.312 500	320.000	Sweden.....	Krona	19.330 4	5.173 21
France.....	Franc	0.202 550	493.706	Syria.....	Pound	45.631 3	2.191 48
Germany, Federal Republic of.....	Deutsche Mark	23.809 5	4.200 00	Thailand.....	Baht	(3)	(3)
Greece.....	Drachma	(3)	(3)	Turkey.....	Lira	35.714 3	2.800 00
Guatemala.....	Quetzal	100.000	1.000 00	Union of South Africa.....	Pound	280.000	0.357 143
Haiti.....	Gourde	20.000 0	5.000 00	United Kingdom.....	Pound	280.000	0.357 143
Honduras.....	Lempira	50.000 0	2.000 00	United States.....	Dollar	100.000	1.000 00
Iceland.....	Króna	6.140 36	16.285 7	Uruguay.....	Peso	(3)	(3)
India.....	Ruppee	21.000 0	4.761 90	Venezuela.....	Bolívar	29.850 7	3.350 00
				Yugoslavia.....	Dinar	0.333 333	300.000

¹ As of Jan. 15, 1959. ² No fixed value. ³ Par value not yet established. ⁴ In Nov. 1949, Peru introduced a new exchange system, but no agreement on a new par value has been reached. Source: International Monetary Fund.

If the wages are—		And the number of withholding exemptions claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of tax to be withheld shall be—										
\$36	\$37	\$6.60	\$4.30	\$2.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$37	\$38	6.80	4.40	2.10	0	0	0	0	0	0	0	0
\$38	\$39	6.90	4.60	2.30	0	0	0	0	0	0	0	0
\$39	\$40	7.10	4.80	2.50	.20	0	0	0	0	0	0	0
\$40	\$41	7.30	5.00	2.70	.40	0	0	0	0	0	0	0
\$41	\$42	7.50	5.20	2.90	.50	0	0	0	0	0	0	0
\$42	\$43	7.70	5.30	3.00	.70	0	0	0	0	0	0	0
\$43	\$44	7.80	5.50	3.20	.90	0	0	0	0	0	0	0
\$44	\$45	8.00	5.70	3.40	1.10	0	0	0	0	0	0	0
\$45	\$46	8.20	5.90	3.60	1.30	0	0	0	0	0	0	0
\$46	\$47	8.40	6.10	3.80	1.40	0	0	0	0	0	0	0
\$47	\$48	8.60	6.20	3.90	1.60	0	0	0	0	0	0	0
\$48	\$49	8.70	6.40	4.10	1.80	0	0	0	0	0	0	0
\$49	\$50	8.90	6.60	4.30	2.00	0	0	0	0	0	0	0
\$50	\$51	9.10	6.80	4.50	2.20	0	0	0	0	0	0	0
\$51	\$52	9.30	7.00	4.70	2.30	0	0	0	0	0	0	0
\$52	\$53	9.50	7.10	4.80	2.50	.20	0	0	0	0	0	0
\$53	\$54	9.60	7.30	5.00	2.70	.40	0	0	0	0	0	0
\$54	\$55	9.80	7.50	5.20	2.90	.60	0	0	0	0	0	0
\$55	\$56	10.00	7.70	5.40	3.10	.80	0	0	0	0	0	0
\$56	\$57	10.20	7.90	5.60	3.20	.90	0	0	0	0	0	0
\$57	\$58	10.40	8.00	5.70	3.40	1.10	0	0	0	0	0	0
\$58	\$59	10.50	8.20	5.90	3.60	1.30	0	0	0	0	0	0
\$59	\$60	10.70	8.40	6.10	3.80	1.50	0	0	0	0	0	0
\$60	\$62	11.00	8.70	6.40	4.10	1.70	0	0	0	0	0	0
\$62	\$64	11.30	9.00	6.70	4.40	2.10	0	0	0	0	0	0
\$64	\$66	11.70	9.40	7.10	4.80	2.50	.20	0	0	0	0	0
\$66	\$68	12.10	9.80	7.40	5.10	2.80	.50	0	0	0	0	0
\$68	\$70	12.40	10.10	7.80	5.50	3.20	.90	0	0	0	0	0
\$70	\$72	12.80	10.50	8.20	5.90	3.50	1.20	0	0	0	0	0
\$72	\$74	13.10	10.80	8.50	6.20	3.90	1.60	0	0	0	0	0
\$74	\$76	13.50	11.20	8.90	6.60	4.30	2.00	0	0	0	0	0
\$76	\$78	13.90	11.60	9.20	6.90	4.60	2.30	0	0	0	0	0
\$78	\$80	14.20	11.90	9.60	7.30	5.00	2.70	.40	0	0	0	0
\$80	\$82	14.60	12.30	10.00	7.70	5.30	3.00	.70	0	0	0	0
\$82	\$84	14.90	12.60	10.30	8.00	5.70	3.40	1.10	0	0	0	0
\$84	\$86	15.30	13.00	10.70	8.40	6.10	3.80	1.50	0	0	0	0
\$86	\$88	15.70	13.40	11.00	8.70	6.40	4.10	1.80	0	0	0	0
\$88	\$90	16.00	13.70	11.40	9.10	6.80	4.50	2.20	0	0	0	0
\$90	\$92	16.40	14.10	11.80	9.50	7.10	4.80	2.50	.20	0	0	0
\$92	\$94	16.70	14.40	12.10	9.80	7.50	5.20	2.90	.60	0	0	0
\$94	\$96	17.10	14.80	12.50	10.20	7.90	5.60	3.30	.90	0	0	0
\$96	\$98	17.50	15.20	12.80	10.50	8.20	5.90	3.60	1.30	0	0	0
\$98	\$100	17.80	15.50	13.20	10.90	8.60	6.30	4.00	1.70	0	0	0
\$100	\$105	18.50	16.10	13.80	11.50	9.20	6.90	4.60	2.30	0	0	0
\$105	\$110	19.40	17.00	14.70	12.40	10.10	7.80	5.50	3.20	.90	0	0
\$110	\$115	20.30	17.90	15.60	13.30	11.00	8.70	6.40	4.10	1.80	0	0
\$115	\$120	21.20	18.80	16.50	14.20	11.90	9.60	7.30	5.00	2.70	.40	0
\$120	\$125	22.10	19.70	17.40	15.10	12.80	10.50	8.20	5.90	3.60	1.30	0
\$125	\$130	23.00	20.60	18.30	16.00	13.70	11.40	9.10	6.80	4.50	2.20	0
\$130	\$135	23.90	21.50	19.20	16.90	14.60	12.30	10.00	7.70	5.40	3.10	.80
\$135	\$140	24.80	22.40	20.10	17.80	15.50	13.20	10.90	8.60	6.30	4.00	1.70
\$140	\$145	25.70	23.30	21.00	18.70	16.40	14.10	11.80	9.50	7.20	4.90	2.60
\$145	\$150	26.60	24.20	21.90	19.60	17.30	15.00	12.70	10.40	8.10	5.80	3.50
\$150	\$160	27.90	25.60	23.30	21.00	18.70	16.40	14.10	11.70	9.40	7.10	4.80
\$160	\$170	29.70	27.40	25.10	22.80	20.50	18.20	15.90	13.50	11.20	8.90	6.60

If the wages are—		And the number of withholding exemptions claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of tax to be withheld shall be—										
\$170.....	\$180.....	\$31.50	\$29.20	\$26.90	\$24.60	\$22.30	\$20.00	\$17.70	\$15.30	\$13.00	\$10.70	\$8.40
\$180.....	\$190.....	33.30	31.00	28.70	26.40	24.10	21.80	19.50	17.10	14.80	12.50	10.20
\$190.....	\$200.....	35.10	32.80	30.50	28.20	25.90	23.60	21.30	18.90	16.60	14.30	12.00
		18 percent of the excess over \$200 plus—										
\$200 and over.....		36.00	33.70	31.40	29.10	26.80	24.50	22.20	19.80	17.50	15.20	12.90

Rate Table for Separate Returns

If your taxable income is:		Your tax is:	
Not over \$2,000		20% of the taxable income	
Over \$ 2,000 but not over \$ 4,000.....		\$ 400, plus 22% of excess over \$ 2,000	
Over \$ 4,000 but not over \$ 6,000.....		\$ 840, plus 26% of excess over \$ 4,000	
Over \$ 6,000 but not over \$ 8,000.....		\$ 1,360, plus 30% of excess over \$ 6,000	
Over \$ 8,000 but not over \$10,000.....		\$ 1,960, plus 34% of excess over \$ 8,000	
Over \$10,000 but not over \$12,000.....		\$ 2,640, plus 38% of excess over \$10,000	
Over \$12,000 but not over \$14,000.....		\$ 3,400, plus 43% of excess over \$12,000	
Over \$14,000 but not over \$16,000.....		\$ 4,260, plus 47% of excess over \$14,000	
Over \$16,000 but not over \$18,000.....		\$ 5,200, plus 50% of excess over \$16,000	
Over \$18,000 but not over \$20,000.....		\$ 6,200, plus 53% of excess over \$18,000	
Over \$20,000 but not over \$22,000.....		\$ 7,260, plus 56% of excess over \$20,000	
Over \$22,000 but not over \$26,000.....		\$ 8,380, plus 59% of excess over \$22,000	
Over \$26,000 but not over \$32,000.....		\$10,740, plus 62% of excess over \$26,000	
Over \$32,000 but not over \$38,000.....		\$14,460, plus 65% of excess over \$32,000	
Over \$38,000 but not over \$44,000.....		\$18,360, plus 69% of excess over \$38,000	
Over \$44,000 but not over \$50,000.....		\$22,500, plus 72% of excess over \$44,000	
Over \$50,000 but not over \$60,000.....		\$26,820, plus 75% of excess over \$50,000	
Over \$60,000 but not over \$70,000.....		\$34,320, plus 78% of excess over \$60,000	
Over \$70,000 but not over \$80,000.....		\$42,120, plus 81% of excess over \$70,000	
Over \$80,000 but not over \$90,000.....		\$50,220, plus 84% of excess over \$80,000	
Over \$90,000 but not over \$100,000.....		\$58,620, plus 87% of excess over \$90,000	
Over \$100,000 but not over \$150,000.....		\$67,320, plus 89% of excess over \$100,000*	
Over \$150,000 but not over \$200,000.....		\$111,820, plus 90% of excess over \$150,000*	
Over \$200,000.....		\$156,820, plus 91% of excess over \$200,000*	

* The tax cannot in any event be more than 87% of taxable income.

Rate Table for Head of Household Returns

If your taxable income is:		Your tax is:	
Not over \$2,000		20% of the taxable income	
Over \$ 2,000 but not over \$ 4,000.....		\$ 400, plus 21% of excess over \$ 2,000	
Over \$ 4,000 but not over \$ 6,000.....		\$ 820, plus 24% of excess over \$ 4,000	
Over \$ 6,000 but not over \$ 8,000.....		\$ 1,300, plus 26% of excess over \$ 6,000	
Over \$ 8,000 but not over \$10,000.....		\$ 1,820, plus 30% of excess over \$ 8,000	
Over \$10,000 but not over \$12,000.....		\$ 2,420, plus 32% of excess over \$10,000	
Over \$12,000 but not over \$14,000.....		\$ 3,060, plus 36% of excess over \$12,000	
Over \$14,000 but not over \$16,000.....		\$ 3,780, plus 39% of excess over \$14,000	
Over \$16,000 but not over \$18,000.....		\$ 4,560, plus 42% of excess over \$16,000	
Over \$18,000 but not over \$20,000.....		\$ 5,400, plus 43% of excess over \$18,000	
Over \$20,000 but not over \$22,000.....		\$ 6,260, plus 47% of excess over \$20,000	
Over \$22,000 but not over \$24,000.....		\$ 7,200, plus 49% of excess over \$22,000	
Over \$24,000 but not over \$28,000.....		\$ 8,180, plus 52% of excess over \$24,000	
Over \$28,000 but not over \$32,000.....		\$10,260, plus 54% of excess over \$28,000	
Over \$32,000 but not over \$38,000.....		\$12,420, plus 58% of excess over \$32,000	
Over \$38,000 but not over \$44,000.....		\$15,900, plus 62% of excess over \$38,000	

Rate Table for Head of Household Returns (contd.)

If your combined taxable income is:

Over \$ 44,000 but not over \$ 50,000.....	\$ 19,620, plus 66% of excess over \$ 44,000
Over \$ 50,000 but not over \$ 60,000.....	\$ 23,580, plus 68% of excess over \$ 50,000
Over \$ 60,000 but not over \$ 70,000.....	\$ 30,380, plus 71% of excess over \$ 60,000
Over \$ 70,000 but not over \$ 80,000.....	\$ 37,480, plus 74% of excess over \$ 70,000
Over \$ 80,000 but not over \$ 90,000.....	\$ 44,880, plus 76% of excess over \$ 80,000
Over \$ 90,000 but not over \$100,000.....	\$ 52,480, plus 80% of excess over \$ 90,000
Over \$100,000 but not over \$150,000.....	\$ 60,480, plus 83% of excess over \$100,000
Over \$150,000 but not over \$200,000.....	\$101,980, plus 87% of excess over \$150,000
Over \$200,000 but not over \$300,000.....	\$145,489, plus 90% of excess over \$200,000*
Over \$300,000.....	\$235,480, plus 91% of excess over \$300,000*

* The tax cannot in any event be more than 87% of taxable income.

Rate Table for Joint Returns

If your combined taxable income is:

Not over \$4,000.....	20% of taxable income
Over \$ 4,000 but not over \$ 8,000.....	\$ 800, plus 22% of excess over \$ 4,000
Over \$ 8,000 but not over \$ 12,000.....	\$ 1,680, plus 26% of excess over \$ 8,000
Over \$ 12,000 but not over \$ 16,000.....	\$ 2,720, plus 30% of excess over \$ 12,000
Over \$ 16,000 but not over \$ 20,000.....	\$ 3,920, plus 34% of excess over \$ 16,000
Over \$ 20,000 but not over \$ 24,000.....	\$ 5,280, plus 38% of excess over \$ 20,000
Over \$ 24,000 but not over \$ 28,000.....	\$ 6,800, plus 43% of excess over \$ 24,000
Over \$ 28,000 but not over \$ 32,000.....	\$ 8,520, plus 47% of excess over \$ 28,000
Over \$ 32,000 but not over \$ 36,000.....	\$ 10,400, plus 50% of excess over \$ 32,000
Over \$ 36,000 but not over \$ 40,000.....	\$ 12,400, plus 53% of excess over \$ 36,000
Over \$ 40,000 but not over \$ 44,000.....	\$ 14,520, plus 56% of excess over \$ 40,000
Over \$ 44,000 but not over \$ 52,000.....	\$ 16,760, plus 59% of excess over \$ 44,000
Over \$ 52,000 but not over \$ 64,000.....	\$ 21,480, plus 62% of excess over \$ 52,000
Over \$ 64,000 but not over \$ 76,000.....	\$ 28,920, plus 65% of excess over \$ 64,000
Over \$ 76,000 but not over \$ 88,000.....	\$ 36,720, plus 69% of excess over \$ 76,000
Over \$ 88,000 but not over \$100,000.....	\$ 45,000, plus 72% of excess over \$ 88,000
Over \$100,000 but not over \$120,000.....	\$ 53,640, plus 75% of excess over \$100,000
Over \$120,000 but not over \$140,000.....	\$ 68,640, plus 78% of excess over \$120,000
Over \$140,000 but not over \$160,000.....	\$ 84,240, plus 81% of excess over \$140,000
Over \$160,000 but not over \$180,000.....	\$100,440, plus 84% of excess over \$160,000
Over \$180,000 but not over \$200,000.....	\$117,240, plus 87% of excess over \$180,000
Over \$200,000 but not over \$300,000.....	\$134,640, plus 89% of excess over \$200,000*
Over \$300,000 but not over \$400,000.....	\$223,640, plus 90% of excess over \$300,000*
Over \$400,000.....	\$313,640, plus 91% of excess over \$400,000*

* The tax cannot in any event be more than 87% of combined taxable income.

SOCIAL SECURITY

The Social Security Act was passed in 1935 and subsequently amended in 1939, 1950, 1952, 1954, and 1958.

The act is administered by the Department of Health, Education and Welfare, of which the Social Security Administration is a part.

Old-Age, Survivors, and Disability Insurance

WHO IS COVERED?

Almost everyone who works fairly regularly. Self-employed doctors are the only large group not covered by this social security program.

To qualify for benefits or make payments possible for your survivors you must be in work covered by the law for a certain number of "quarters of coverage" after 1936 (for self-employment, after 1950). The number of quarters needed differs for different persons and depends on the date of your birth; in general, it is related to the length of time from 1936, from 1950, or from your twenty-first birthday and the time you reach retirement age. No one needs more than 40 quarters, and no one can qualify with less than 6. Your local social security office can tell you how long you need to work in covered employment under the present law.

WHO PAYS FOR THE INSURANCE?

Both workers and employers pay for the workers' insurance. Self-employed persons pay their own tax annually along with their income tax. Tax rates are scheduled to go up gradually until 1975:

Years	Workers and Employers Each to Pay	Self-employed to Pay
1959.....	2½%	3¾%
1960-62.....	3%	4½%
1963-65.....	3½%	5¼%
1965-68.....	4%	6%
1969 and after.....	4½%	6¾%

HOW TO APPLY FOR BENEFITS

You apply for benefits by filing a claim either in person or by mail at your nearest social security office. You can get the address either from the post office or from the phone book under the listing, United States Government—Department of Health, Education and Welfare—Social Security Administration. You will need certain kinds of proof, depending upon the type of benefit you are claiming. If it is an old-age benefit, you should have proof of age. A wife claiming old-age benefits based on her husband's earnings should have both proof of age and a copy of the marriage certificate. In the case of survivors' benefits, you will need a copy of the death certificate of the deceased worker. If formal proof is not available, the social security office will tell you what kinds of information will be acceptable.

WHAT DOES SOCIAL SECURITY OFFER?

The social security tax you pay gives you three different kinds of protection: (1) retirement benefits, (2) survivors' benefits, and (3) disability benefits.

Retirement benefits. A man becomes eligible for an old-age benefit at age 65, if he has retired under the definition in the law. A woman worker also is eligible for a full old-age benefit at 65, but she may retire at 62 and get 80% of her full benefit for the rest of her life. The closer she is to age 65 when she starts collecting her benefit, the larger the fraction of her full benefit she will get.

The amount of the old-age benefit you are entitled to is the key to all other benefits under the program. The old-age benefit is based on average monthly earnings, generally those after 1950. (Amounts over \$4,800 a year are not counted.) The table on the following page gives examples of benefits.

Using the table as a guide, you will see that average monthly earnings of \$300

would give you a benefit of \$105 a month when you retire at 65.

If your wife is also 65, then she will get a wife's benefit that is equal to half your benefit. So if your benefit is \$105 your wife gets \$52.50 (cents are rounded to the nearest dime).

If your wife is younger than you, but not under 62, she can draw a reduced benefit that depends on the number of months before she will be 65. If she draws her benefit when she is 62, she will get about ¾ of your basic benefit, or \$39.40. (She will get this amount for the rest of her life, unless you should die first; then she can start getting the full widow's benefit, described below.)

If your wife is entitled to a worker's old-age benefit on her own earnings she can draw whichever—the worker's or the wife's—is larger. No one can draw two benefits at the same time.

If you have children under 18 when you retire, they will get a benefit equal to half your benefit, and so will your wife, in that case, even if she is under 62. However, total benefits based on your earnings cannot be more than \$254.10 a month or 80% of your average monthly wage. When your children reach age 18, their benefits will stop, except a benefit that is going to a child who is permanently and totally disabled. Such a child can continue to get his benefit as long as his disability meets the definition in the law.

If you are a woman worker entitled to an old-age benefit and you have a dependent husband aged 65 or over, he may draw a benefit similar to a wife's benefit at 65.

Survivor benefits. This feature of the social security program gives you valuable life insurance protection—in some cases over \$30,000 worth. The amount of protection is again geared to what the worker would be entitled to at 65. If you can estimate from the table what your basic monthly benefit would be at 65, this is what your survivors would get:

1. A cash payment to cover your burial expenses. This comes to 3 times the basic monthly benefit but no more than \$255.

2. A benefit for each child until he reaches 18. If there is only one child eligible, he gets 75% of the basic benefit. If there are two or more children, each one gets 50% of the basic benefit and an additional 25% is split among them. (A disabled child can continue to collect benefits after age 18.)

3. A mother's benefit for your widow, if she has children under 18 in her care. Her benefit is 75% of the basic benefit. She can collect this until the youngest child reaches 18. Payments stop then (they

What Benefits You Get Under Social Security

Based on an average monthly wage of	Retirement benefits			Survivors' benefits		
	Worker's monthly benefit ¹	Worker with 62-year-old wife ¹	Worker with 65-year-old wife ¹	Widow and 1 child	Widow and 2 children	Widow age 62 ²
\$100.....	\$ 59.00	\$ 79.70	\$ 88.50	\$ 88.60	\$ 88.60	\$ 44.30
150.....	73.00	98.60	109.50	109.50	120.00	54.80
200.....	84.00	114.40	126.00	126.00	161.60	63.00
250.....	95.00	128.90	142.50	142.50	190.10	71.30
300.....	105.00	141.80	157.50	157.50	210.20	78.80
350.....	116.00	156.60	174.00	174.00	232.00	87.00
400.....	127.00 ³	171.50 ³	190.50 ³	190.50 ³	254.10 ³	95.30 ³

¹ Also indicates amount worker aged 50-64 or worker and wife (aged 62 or 65) would get if disabled. ² Also indicates amount that would be paid to only child or parent. ³ These are maximum benefits under the new law of 1958, but they will not be payable for several years to come; that is, to receive maximum benefits, the average salary of the worker, excluding the lowest 5 years, would have to be \$4,800, starting Jan. 1, 1959.

will start again when she is 62). If she has a disabled child in her care who is getting a benefit after 18, then her benefit continues, too.

Total family benefits cannot go over \$254.10 a month or 80% of your average monthly wage.

4. If there are no children under 18, your wife can get a widow's benefit starting at age 62. This would come to 75% of the basic benefit.

5. Dependent parents can sometimes collect survivors' benefits, if the deceased worker leaves no wife or child. They are usually eligible if: (a) they were getting at least half their support from the deceased worker when he died, (b) they have reached retirement age (65 for the father, 62 for the mother), and (c) they are not eligible for an old-age benefit based on their own earnings. Each parent would then get 75% of the basic benefit.

A woman worker can provide survivors' benefits for any of these dependents, if she has been contributing at least half their support: (1) her children under age 18, (2) her disabled child after 18, if the child is unmarried and was disabled before 18, and (3) her dependent widowed husband at age 65, if he hasn't remarried. Or, if she had no other dependents, her parents could collect benefits if they met the tests in paragraph (5) above.

Here is an example of survivors' benefits in one family situation: John Jones dies, leaving a wife and two children aged one and three. His average monthly wage was \$300. This would have given him an old-age benefit of \$105, if he had lived to 65. This is what his family gets: (1) a cash burial payment of \$255; (2) a total monthly benefit of \$131.50 for the two children; and (3) a \$78.80 monthly benefit for Mrs. Jones. Total benefits for the family come to \$210.20 a month while the two children are under 18. When the older child reaches 18 his benefits stop, but the younger child's benefit is raised

to \$78.80 a month. Mrs. Jones and the younger child then collect a total of \$157.50 a month for two years until the child reaches 18. Then all payments stop. When Mrs. Jones becomes 62 (assuming she hasn't remarried), she will again be paid \$78.80 a month.

Disability benefits. These are a new feature of the social security insurance system. Disability benefits are paid to two groups of people:

1. An insured worker with a total disability can collect his full old-age benefit at age 50, instead of waiting until 65. Under the new law of 1958, eligible dependents of disabled workers will receive the usual benefits. To be eligible for disability benefits, a person must: (a) have worked in employment (or self-employment) covered by social security for about 5 out of the 10 years before he became disabled; (b) be suffering from a physical or mental disability of indefinite duration; and (c) be so disabled that he can't work, or at least "engage in any substantial gainful activity." If he meets those tests, his benefits will start after a 6-month waiting period.

The applicant is referred to the State vocational rehabilitation agency and, if rehabilitation services are proposed and the applicant refuses them without good cause, his disability benefit is suspended. If the worker gets workmen's compensation benefit or another federal benefit based on disability, his disability benefit is reduced by the amount of such benefit—except that a benefit paid by the Veterans Administration because of service-connected disability will not result in any reduction.

2. The permanently disabled child of a deceased or retired person who was covered by social security can collect benefits after age 18 (when children's benefits are ordinarily cut off). If the child is eligible, his mother can also get a benefit. The child must: (a) have been disabled before age 18 (but he need not have been draw-

ing benefits before 18), (b) be unmarried, and (c) have been dependent on the deceased or retired worker for at least half his support. The child's benefit would be 75% of the father's basic benefit and his mother would get the same amount. A disabled child can get a benefit based on his mother's earnings, instead of his father's, if she has contributed to at least half his support and has died or is drawing an old-age benefit.

The disabled child's benefit can actually be paid to adults, if the above tests are met. For example, an unmarried person, aged 40, who was born blind and is dependent on his father for support can collect a disabled child's benefit as soon as his father starts drawing an old-age benefit or dies.

YOU CAN EARN INCOME WITHOUT LOSING BENEFITS

If you are 72 or over, you can earn any amount. If you are under 72, you can earn \$1,200 a year without losing any benefits. (Only earned income is counted, not pensions, dividends, etc.) For each \$80 (or fraction of \$80) over \$1,200, you can lose one month's benefit. For example, \$1,290 could cancel two months' benefits, and \$2,081 could mean loss of the whole year's benefits. But you will not lose the benefit for any month in which you did not work as an employee for \$100 or more and did not perform substantial services in self-employment. For example, if you earned \$3,000 in 3 months and were idle the rest of the year, you would lose only 3 months' benefits.

When a man and wife are drawing old-age benefits based on his earnings, the wife will lose her benefit in any month that the husband loses his. But if a widow with young children loses her benefits by working, the children will continue to get theirs.

If you earn over \$1,200 a year while drawing benefits (and are under 72), you must report those earnings.

HOW TO PROTECT MY SOCIAL SECURITY ACCOUNT

1. *Always show your social security card when you start a new job.* In that way you will be sure that your earnings will be credited to your social security account and not someone else's. If you lose your social security card, apply for a new one. When a woman marries, she should apply for a new card showing her married name.

2. *Make a periodic check of earnings credited to your social security account.* You can do this by mailing postcard Form OAR-7004 to the Social Security Adminis-

tration, Baltimore, Md. (You can get this form at any social security office.) The reply will show total wages credited to your account since 1936 or when you started working. It's a good idea to check once every three years and prevent errors.

3. *If you should become permanently disabled, have your social security credits "frozen."* Social security benefits are usually based on your average earnings up to the date of death or retirement. A long period of sickness or disability could lower your average earnings and thus cut down or even eliminate the eventual benefit you or your family might get. But you can avoid this reduction in benefits by applying for a disability determination at your local social security office. Then the period of disability will not be counted.

PUBLIC ASSISTANCE

Aid to four groups of needy persons is provided under the Social Security Act through assistance programs administered by the states with grants from the Federal government. The Federal share of the individual payment, for the aged, the blind, and the disabled is 4/5 of the first \$30 of the average monthly payment plus half the balance, up to the \$65 maximum specified in the law. A blind person may earn up to \$50 a month and have such earnings disregarded when the state is determining whether he is needy. For aid to dependent children, the Federal government pays 14/17 of the first \$17 paid per person per month plus 1/2 the balance within the maximums (\$32 for one needy adult, \$32 for the first child, and \$23 for each additional child). To be eligible a child must be (1) under 18; (2) without parental support or care because of the death, absence from the home, or incapacity of a parent and (3) living with a parent or specified relative.

The law also permits federal sharing in the payments to doctors and others for medical care in behalf of needy persons—beyond what such persons get directly in their assistance payment.

Unemployment Insurance

Unemployment insurance is managed jointly by the states and the national government. Most states began paying benefits in 1938 and 1939.

UNDER WHAT CONDITIONS CAN THE WORKER COLLECT

The laws vary from state to state. In general, a waiting period of one week is required before collecting unemployment insurance; the worker must be able to work, must not have quit without good cause or have been discharged for misconduct; he must not be involved in a

State Unemployment Compensation Maximums

Compiled by: New York State Department of Labor, Division of Employment.

State	Weekly benefit ¹	Duration (in weeks)	State	Weekly benefit ¹	Duration (in weeks)
Alabama.....	\$28	20	Montana.....	\$32	22
Alaska.....	45	26	Nebraska.....	34	26
Arizona.....	35	26	Nevada.....	37.50	26
Arkansas.....	30	26	New Hampshire.....	38	26
California.....	55	26-39 ⁴	New Jersey.....	35	26
Colorado.....	42 ²	32½	New Mexico.....	36	30
Connecticut.....	45	26-39 ⁴	New York.....	45	26
Delaware.....	40	26	North Carolina.....	32	26-34 ⁴
D. C.....	30	26	North Dakota.....	32	24
Florida.....	33	26	Ohio.....	42	26
Georgia.....	30	22 ³	Oklahoma.....	32	39
Hawaii.....	45	26	Oregon.....	40	26
Idaho.....	40	26-39 ⁴	Pennsylvania.....	35	30
Illinois.....	32	26-39 ⁴	Rhode Island.....	36	26
Indiana.....	36	26	South Carolina.....	26	22
Iowa.....	30	26	South Dakota.....	33	24
Kansas.....	40	26	Tennessee.....	32	22
Kentucky.....	34	26	Texas.....	28	24
Louisiana.....	35	28	Utah.....	40	36
Maine.....	33	26	Vermont.....	36	26-39 ⁴
Maryland.....	35	26	Virginia.....	28	18
Massachusetts.....	35	26	Washington.....	42	30
Michigan.....	30	26	West Virginia.....	30	24
Minnesota.....	38	26	Wisconsin.....	41	34
Mississippi.....	30	26	Wyoming.....	44	26
Missouri.....	33	26	Puerto Rico.....	12	7

¹ Excludes dependents' allowances and also extended duration under temporary state and Federal laws that were scheduled to expire before or in July 1959. ² Amount increased by 25% for certain claimants with good benefit experience record. ³ Basic duration is 20 weeks; extension of 2 weeks is given to certain claimants with full base-year employment. ⁴ The higher figure applies only when unemployment in the state reaches specified levels. ⁵ Effective under temporary program that expires Dec. 26, 1959; basic duration varies from 12 to 26 weeks.

labor dispute; above all, he must be willing to take a job in his field at prevailing wage rates. Other restrictions on payments involve leaving for marriage, pregnancy or further education.

The unemployed worker must go to the local state employment service office to register his claim for unemployment benefits and must register for work. If a suitable opening is available in his field, he must accept it or lose his unemployment payments. If a worker moves out of his own state, he can still collect at his new residence; the state where he is now located will act as agent for the other state, which pays his benefits.

WHO PAYS FOR THE INSURANCE?

The cost is borne by the employer in all but two states and Alaska. Each State (Alaska excepted) has a sliding scale of rates. The standard rate is set at 2.7% of taxable payroll in most states. But employers with records of steady employment (that is, few layoffs) are rewarded with rates lower than the standard 2.7%. The average rate for employers in 1956 was 1.3%. Tax is payable on only the first \$3,000 of a worker's pay, except in Delaware, Nevada, Oregon, and Rhode Island, where the limit is set at \$3,600, and in Alaska where the limit is \$4,200. Em-

ployees as well as employers pay a tax in Alabama (0.1%), New Jersey (¼ of 1%), and Alaska (½ of 1%).

Employers pay an additional unemployment tax to the Federal Government—0.3% of the \$3,000 paid to each employee. This money is returned to the states in the form of federal grants for administrative expenses of the program; any amounts over these costs, up to \$200 million, is put in a special loan fund on which the states may draw when their payment funds are low, and the rest of the excess is assigned to the states to supplement the grants for administrative costs.

Requirements vary from state to state, but all states cover firms having at least 4 employees for 20 weeks or more a year. In some states, firms with only one employee are covered. Certain classes of workers are specifically exempt under some or all state laws: farm workers, domestic workers, members of the employer's family, insurance agents on commission, workers in nonprofit organizations, student nurses, internes and casual labor.

Railroad Workers

These are covered by the Railroad Retirement Act, passed in 1935 and amended in 1937 and 1946. The social security provisions of this act are administered by the Railroad Retirement Board.

CONTRACT BRIDGE

By B. JAY BECKER

Top Record-Holder in Masters' Individual Championship Play

Contract bridge was invented by Harold S. Vanderbilt in 1925. The new game was a great improvement over the parent game, auction bridge, which in turn had been derived from whist, a card game of two centuries standing.

Contract bridge developed rapidly but did not catch fire with the public until the late Ely Culbertson, a promotion genius of the first order, staged a simulated grudge match against Sidney Lenz in 1931. Newspapers everywhere carried daily stories on the hectic match refereed by Lieutenant (now General) Alfred M. Gruenther.

Various systems of bidding sprang up during the first years of contract bridge but after five or six years of experimentation the best features of each were joined to form what is essentially the system in use today. Among the leading contributors to the evolution of present day methods were Vanderbilt, Culbertson, Lenz, Work, Whitehead, Reith, Goren, Blackwood, Roth, Stayman.

Today, bridge is regarded as almost a social necessity. Hundreds of textbooks have been written and many newspapers carry daily bridge columns. It is estimated there are 35 million bridge players in the United States. Sectional, national and international tournaments are conducted by the American Contract Bridge League, governing body of bridge.

EVALUATION

For many years, the chief method of determining the value of a hand was by means of a scale called honor tricks. Culbertson was chief proponent of this method. High cards are, for example, valued as follows:

A = 1 H. T.	K-x = $\frac{1}{2}$ H. T.
K-Q = 1 H. T.	Q-J-x = $\frac{1}{2}$ H. T.
A-K = 2 H. T.	Q or J = plus value
A-Q = $\frac{1}{2}$ H. T.	

During the past ten years the honor trick method has been largely supplanted by the point count method. Point count was devised by Milton Work back in the auction days, but was not generally accepted until Charles H. Goren took a prominent part in bringing it to the attention of the public. The experts had played point count for years, but to the lesser players it was relatively unknown. The introduction of point count has done a great deal to raise the level of bidding skill for the average player.

Point count evaluation divides into two categories: high card points and distributional points. With balanced hands—hands without a void or singleton—the high card point count is both practical and accurate and reflects essentially the true value of a hand.

HIGH CARD POINTS

Ace = 4 points	Queen = 2 points
King = 3 points	Jack = 1 point
Total points in deck	= 40
Points in each suit	= 10
Points in average hand	= 10
Points required for game	= 26
Points required for small slam	= 33
Points required for grand slam	= 37

Opening notrump bids are characterized by distribution which is usually 4-3-3-3, 4-4-3-2, or in some cases 5-3-3-2 and strength or stoppers in all four suits. The required point count is:

Opening 1 N. T. = 16 to 18 points
Opening 2 N. T. = 22 to 24 points
Opening 3 N. T. = 25 to 27 points

With 19, 20 or 21 points, bid one of a suit and jump in notrump over partner's response. Responses to an opening one notrump bid, with a balanced hand:

Raise 1 N. T. to 2 N. T. with 8 or 9 points
Raise 1 N. T. to 3 N. T. with 10 to 14 points
Raise 1 N. T. to 6 N. T. with 17 to 20 points
Raise 1 N. T. to 7 N. T. with 21 points or more

DISTRIBUTIONAL POINT COUNT

Two methods of evaluating distributional points are in general use. According to the Goren method 3 points are taken for each void, 2 points for each singleton and 1 point for each doubleton. These are added to the high card point count to determine the value of the hand.

According to the Karpin method 1 point is taken for each card in a suit above four. These points are then added to the high card points to determine the value of the hand.

As new information is obtained during the bidding, the original distributional point count evaluation may rise or fall. Distributional point count should not be rigidly followed. It is a flexible yardstick.

OPENING SUIT BIDS

The opening bid of one in a suit ranges usually from 12 to 21 points. All hands containing 14 high card points are compulsory opening bids. Distributional factors are important in evaluating a hand. Distribution is a key factor in every deal.

In choosing the suit with which to open the bidding, the longest suit is usually bid first. When two suits are of equal length the higher ranking suit is generally bid first. When there are three biddable four-card suits the suit that is chosen is the one directly beneath the singleton in rank.

RESPONSES TO SUIT BIDS

Any new suit named by the responding hand compels the opening bidder to bid

again. With 6 points or more the partner of the opening bidder of one in a suit must make a response. He may name a new suit, respond in notrump or raise the opening bidder's suit.

The single raise of the opening bidder's suit denotes adequate trump support and 6 to 9 points which include distributional values. The response of one notrump denotes a balanced hand without adequate trump support with 6 to 9 points in high cards. The response of one of a new suit denotes 6 to 16 points. The response of two in a new suit denotes 10 to 16 points.

The jump raise of the opening bidder's suit, for example 1 spade—3 spades, denotes at least four trumps and 13 to 15 points. The response of 2 notrump to the opening bid of one in a suit denies adequate trump support and represents a balanced hand with 13 to 15 points in high cards, plus stoppers in the remaining three suits. The response of 3 notrump indicates 16 to 18 points and a balanced hand with stoppers in the other three suits.

BIDDABLE SUITS

Any five card suit is biddable. Any four card suit which includes four high card points is biddable.

REBIDS BY OPENING BIDDER

Having opened with one of a suit the opening bidder may identify a minimum type of hand by rebidding one notrump or by repeating his previous suit in minimum terms. A rebid by the opening bidder, where he goes one level higher than necessary, represents a strong hand containing at least 17 points.

OPENING BID OF TWO IN A SUIT

This bid is forcing to game. It represents a hand which for practical purposes can make a game by itself. The best method in use to determine whether a hand ranks as a two bid is to count the losers, and if the hand then contains enough winners to insure a game the hand qualifies as a two bid. The response to a two bid is 2 notrump unless the responder has more than 6 points in which case he either raises his partner, bids his own suit or jumps in notrump.

OVERCALLS

The bid over an adverse opening bid, when made in the one level, usually ranges in high cards between 7 and 13 points and includes a good suit. The overcall in the two level is made with a strong suit and usually has about 12 or 13 points in high cards. In making overcalls, the number of winning tricks which are probable is more important than the point count. The overcaller should not be subject to a penalty in excess of 500 points in the event he should be doubled. The informatory double over an adverse opening bid represents at least an opening bid of its own.

BLACKWOOD SLAM CONVENTION

After the partners have agreed definitely or inferentially upon a suit as trump the bid of 4 notrump by either of them is an artificial bid requesting partner to name the number of Aces he has. The responses are as follows:

- No Aces — 5 Clubs
- 1 Ace — 5 Diamonds
- 2 Aces — 5 Hearts
- 3 Aces — 5 Spades
- 4 Aces — 5 Notrump

When the response is followed by a 5 notrump bid it should be construed as a request for the number of Kings. The responses are as follows:

- No Kings — 6 Clubs
- 1 King — 6 Diamonds
- 2 Kings — 6 Hearts
- 3 Kings — 6 Spades
- 4 Kings — 6 Notrump

STAYMAN NOTRUMP CONVENTION

The response of 2 Clubs to partner's opening one notrump bid is an artificial bid requesting the opener to bid a four card major suit. If the opening bidder has no four card major he replies by bidding 2 diamonds with a minimum one notrump bid, or 2 notrump with a maximum notrump bid.

IN GENERAL

Bridge is a partnership game. In bidding, each player tries to represent to his partner the strength or weakness of his hand. Exact bidding will produce exact results. Weak hands are bid weakly; strong hands are bid strongly. Forcing bids must be respected. Partners' bids should be trusted more than the opponents' bids.

High card point count in balanced hands is very accurate. Distributional point count is sometimes treacherous and common sense should be employed where the distributional point count does not appear to give an accurate evaluation of the true value of the hand.

In counting defensive tricks against a suit contract, honor tricks provide a more reliable gauge than point count.

Remember that the important thing in bridge is the number of tricks that are taken, not the number of points a side has. Remember also that all the rules in bridge are made to be broken at the appropriate time. There is no such word as "never" when it comes to stating a general principle. You can be dealt 635,013,559,600 different hands in bridge. No general rules can be expected to cover all possibilities. Imagination and ingenuity are important qualities to be exercised.

Large penalties should be avoided. A game should not be bid unless there is nearly an even chance of making it; a small slam should not be bid unless there is an even chance at least to make it; a grand slam should not be bid unless there is at least a 2 to 1 probability of making it. Play probabilities, and not hunches. Bridge is a scientific game.

ASTRONOMY AND CALENDAR

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Time

Apparent solar time is measured by the apparent diurnal rotation of the sun, and is the hour-angle of the sun $+12^h$. When the sun is at lower transit we have 0^h by apparent time; when it is on the upper meridian the apparent time is 12^h . The sun is not a good timekeeper, its eastward motion along the ecliptic being irregular, so apparent days are of unequal duration.

Mean solar time is the hour-angle of the "mean sun" $+12^h$. The mean sun is an imaginary body moving uniformly along the celestial equator. When the mean sun is on the lower meridian, the mean time is 0^h . The actual sun is sometimes ahead of and sometimes behind the mean sun, and the difference at any moment is the *equation of time*. When the sun is west of the mean sun, we have the "sun fast" situation, and the sun crosses the meridian before the mean sun; when the sun is east of the mean sun, we have the "sun slow" condition, and the sun transits after the mean sun. The equation of time helps in conversion of apparent and mean solar time. No clock runs on apparent time but ordinary clocks keep mean solar time in some form.

Local civil time (L.C.T.) is the mean solar time of a designated meridian, and its day begins with the mean sun at lower transit. This is midnight, the moment of *zero hour* (0^h). Ordinary clocks are not set to local civil time, because this time—at any instant—varies with any change of longitude.

Standard time is the local civil time of a standard meridian, but used over an entire time-zone. In the U. S. the four zones (Eastern, Central, Mountain, and Pacific) are based upon the standard meridians of 75° , 90° , 105° , and 120° respectively. Ordinary clocks run on standard time, a type of mean solar time. In the summer, in certain localities, they run on advanced time (as daylight saving time) but this is only a clock-setting, and is actually standard time. Daylight saving time for a certain zone is the normal standard time of one zone to the east. While popular in certain metropolitan areas, it is not used for scientific observations. Advanced time is 1^h later on the clock-face than the normal standard time of the same zone.

Time zones. A time-zone chart of the entire world shows clearly how the world is divided into 24 time zones according to longitude. In a large proportion of countries, standard time is in use, and commonly the time on the clock-face reads 1 hour later for each zone east of a given zone, and 1 hour earlier for each zone west of a given zone. The zero time-zone of the world runs thru Greenwich, Eng., and the zones are so marked that the standard time at a particular station, added algebraically to the zone-number at the bottom gives the corresponding universal time or Greenwich civil time. For example, 3 A.M., M.S.T. $+ 7^h = 10^h$ U.T. or G.C.T.

Mexico, except for part of the west coast and Lower California, uses 90th-meridian time. Canada uses the 4 standard-time zones of the U. S., and two others: (1) 60th-meridian or Atlantic standard time, for New Brunswick, Nova Scotia, and Quebec (east of 68° w.), 4^h earlier than Greenwich, and (2) 135th-meridian or Yukon standard time, 9^h earlier than Greenwich. Newfoundland and the Labrador coast use Newfoundland standard time, $3^h 30^m$ earlier than Greenwich. Alaska uses 4 time-zones, those based on the following meridians of west longitude: 120° (Juneau), 135° or Yukon standard time (Yakutat), 150° or Alaska standard time (Fairbanks), and 165° (Nome).

The Date-line. At any moment of time, usually there are parts of two different but contiguous days going on at different places on the earth. The change of date is made at the date-line, an imaginary line that follows essentially the course of the 180° meridian in the Pacific Ocean. At points east of the date-line the calendar day is 1 day earlier than at places to the west of the line. At a point just west of the date-line, let us suppose it is 18^h or 6 P.M., L.C.T., on Aug. 1. At the same moment it is 12^h at long. 90° e., 6^h at long. 0° , and 0^h at long. 90° w., all of the same date, Aug. 1. West of long. 90° w., it is not yet 0^h (midnight); hence between 90° w. and 180° the date must be July 31. As one crosses the date-line going eastward his watch remains the same but the date changes abruptly to 1 day earlier, so the traveler repeats part of a calendar day.

Longitude and Latitude of Foreign Cities and Time Corresponding to 12:00 Noon, E.S.T.

City	Long.		Lat.		Time	City	Long.		Lat.		Time
	°	'	°	'			°	'	°	'	
Aberdeen, Scotland.....	2	9 w	57	9 n	5:00 p.m.	Lima, Peru.....	77	2 w	12	0 s	12:00 noon
Adelaide, Australia.....	138	36 e	34	55 s	2:30 a.m.*	Lisbon, Portugal.....	9	9 w	38	44 n	5:00 p.m.
Algiers, Algeria.....	3	0 e	36	50 n	5:00 p.m.	Liverpool, England.....	3	0 w	53	25 n	5:00 p.m.
Amsterdam, Netherlands.....	4	53 e	52	22 n	5:00 p.m.	London, England.....	0	5 w	51	32 n	5:00 p.m.
Ankara, Turkey.....	32	55 e	39	55 n	7:00 p.m.	Lyon, France.....	4	50 e	45	45 n	6:00 p.m.
Asunción, Paraguay.....	57	40 w	25	15 s	1:00 p.m.	Madrid, Spain.....	3	42 w	40	26 n	6:00 p.m.
Athens, Greece.....	23	43 e	37	58 n	7:00 p.m.	Makassar, Celebes.....	119	30 e	5	9 s	1:00 a.m.*
Auckland, New Zealand.....	174	45 e	36	52 s	5:00 a.m.*	Manchester, England.....	2	15 w	53	30 n	5:00 p.m.
Bangkok, Thailand.....	100	30 e	13	45 n	0:00 a.m.*	Manila, Philippines.....	120	57 e	14	35 n	1:00 a.m.*
Barcelona, Spain.....	2	9 e	41	23 n	6:00 p.m.	Marseille, France.....	5	20 e	43	20 n	6:00 p.m.
Belém, Brazil.....	48	29 w	1	28 s	2:00 p.m.	Mazatlán, Mexico.....	106	25 w	23	12 n	10:00 a.m.
Belfast, Northern Ireland.....	5	56 w	54	37 n	5:00 p.m.	Mecca, Saudi Arabia.....	39	45 e	21	29 n	8:00 p.m.
Belgrade, Yugoslavia.....	20	32 e	44	52 n	6:00 p.m.	Melbourne, Australia.....	144	58 e	37	47 s	3:00 a.m.*
Berlin, Germany.....	13	25 e	52	30 n	6:00 p.m.	Mexico City, Mexico.....	99	7 w	19	26 n	11:00 a.m.
Birmingham, England.....	1	55 w	52	25 n	5:00 p.m.	Milan, Italy.....	9	10 e	45	27 n	6:00 p.m.
Bogotá, Colombia.....	74	15 w	4	32 n	12:00 noon	Montevideo, Uruguay.....	56	10 w	34	53 s	2:00 p.m.
Bombay, India.....	72	48 e	19	0 n	9:30 p.m.	Moscow, U.S.S.R.....	37	36 e	55	45 n	8:00 p.m.
Bordeaux, France.....	0	31 w	44	50 n	6:00 p.m.	Munich, Germany.....	11	35 e	48	8 n	6:00 p.m.
Bremen, Germany.....	8	49 e	53	5 n	6:00 p.m.	Nagasaki, Japan.....	129	57 e	32	48 n	2:00 a.m.*
Brisbane, Australia.....	153	8 e	27	29 s	3:00 a.m.*	Nagoya, Japan.....	136	56 e	35	7 n	2:00 a.m.*
Bristol, England.....	2	35 w	51	28 n	5:00 p.m.	Nairobi, Kenya.....	36	55 e	1	25 n	8:00 p.m.
Brussels, Belgium.....	4	22 e	50	52 n	6:00 p.m.	Nanking, China.....	118	53 e	32	3 n	1:00 a.m.*
Bucharest, Rumania.....	26	7 e	44	25 n	7:00 p.m.	Naples, Italy.....	14	15 e	40	50 n	6:00 p.m.
Budapest, Hungary.....	19	5 e	47	30 n	6:00 p.m.	Newcastle-on-Tyne, Eng.....	1	37 w	54	58 n	5:00 p.m.
Buenos Aires, Argentina.....	58	22 w	34	35 s	2:00 p.m.	Odessa, U.S.S.R.....	30	48 e	46	27 n	8:00 p.m.
Cairo, Egypt.....	31	21 e	30	2 n	7:00 p.m.	Osaka, Japan.....	135	30 e	34	32 n	2:00 a.m.*
Calcutta, India.....	88	24 e	22	34 n	9:30 p.m.	Oslo, Norway.....	10	42 e	59	57 n	6:00 p.m.
Canton, China.....	113	15 e	23	7 n	1:00 a.m.*	Panamá City, Panamá.....	79	32 w	8	58 n	12:00 noon
Capetown, U. of S. Af.....	18	22 e	33	55 s	7:00 p.m.	Paramaribo, Surinam.....	55	15 w	5	45 n	12:30 p.m.
Caracas, Venezuela.....	67	2 w	10	28 n	11:30 p.m.	Paris, France.....	2	20 e	48	48 n	6:00 p.m.
Cayenne, French Guiana.....	52	18 w	4	49 n	1:30 p.m.	Peiping, China.....	116	25 e	39	55 n	1:00 a.m.*
Chihuahua, Mexico.....	106	5 w	28	37 n	11:00 a.m.	Perth, Australia.....	115	52 e	31	57 s	1:00 a.m.*
Chungking, China.....	106	34 e	29	46 n	0:00 a.m.*	Plymouth, England.....	4	5 w	50	25 n	5:00 p.m.
Copenhagen, Denmark.....	12	34 e	55	40 n	6:00 p.m.	Port Moresby, Papua Ter.....	147	8 e	9	25 s	3:00 a.m.*
Córdoba, Argentina.....	64	10 w	31	28 s	2:00 p.m.	Prague, Czechoslovakia.....	14	26 e	50	5 n	6:00 p.m.
Dakar, French West Africa.....	17	28 w	14	40 n	4:00 p.m.	Rangoon, Burma.....	96	0 e	16	50 n	11:30 p.m.
Darwin, Australia.....	130	51 e	12	28 s	2:30 a.m.*	Reykjavik, Iceland.....	21	58 w	64	4 n	4:00 p.m.
Dublin, Ireland.....	6	15 w	53	20 n	5:00 p.m.	Rio de Janeiro, Brazil.....	43	12 w	22	57 s	2:00 p.m.
Durban, U. of S. Af.....	30	53 e	29	53 s	7:00 p.m.	Rome, Italy.....	12	27 e	41	54 n	6:00 p.m.
Edinburgh, Scotland.....	3	10 w	55	55 n	5:00 p.m.	Santiago, Chile.....	70	45 w	33	28 s	1:00 p.m.
Frankfurt, Germany.....	8	41 e	50	7 n	6:00 p.m.	São Paulo, Brazil.....	46	31 w	23	31 s	2:00 p.m.
Georgetown, British Guiana.....	58	15 w	6	45 n	1:15 p.m.	São Salvador, Brazil.....	38	27 w	12	56 s	2:00 p.m.
Glasgow, Scotland.....	4	15 w	55	50 n	5:00 p.m.	Shanghai, China.....	121	28 e	31	10 n	1:00 a.m.*
Guatemala City, Guatemala.....	90	31 w	14	37 n	11:00 a.m.	Singapore, British Malaya.....	103	55 e	1	14 n	0:30 a.m.*
Guayaquil, Ecuador.....	79	56 w	2	10 s	12:00 noon	Sofia, Bulgaria.....	23	20 e	42	40 n	7:00 p.m.
Hamburg, Germany.....	10	2 e	53	33 n	6:00 p.m.	Stockholm, Sweden.....	18	3 e	59	17 n	6:00 p.m.
Hammerfest, Norway.....	23	38 e	70	38 n	6:00 p.m.	Sydney, Australia.....	151	0 e	34	0 s	3:00 a.m.*
Havana, Cuba.....	82	23 w	23	8 n	12:00 noon	Tananarive, Madagascar.....	47	33 e	18	50 s	8:00 p.m.
Helsinki, Finland.....	25	0 e	60	10 n	7:00 p.m.	Teheran, Iran.....	51	45 e	35	45 n	8:30 p.m.
Hobart, Tasmania.....	147	19 e	42	52 s	3:00 a.m.*	Tokyo, Japan.....	139	45 e	35	40 n	2:00 a.m.*
Iquique, Chile.....	70	7 w	20	10 s	1:00 p.m.	Tripoli, Libya.....	13	12 e	32	57 n	6:00 p.m.
Irkutsk, U.S.S.R.....	104	20 e	52	30 n	1:00 a.m.*	Venice, Italy.....	12	20 e	45	26 n	6:00 p.m.
Jakarta, Java.....	106	48 e	6	16 s	0:30 a.m.*	Veracruz, Mexico.....	96	10 w	19	10 n	11:00 a.m.
Jibuti, French Somaliland.....	43	3 e	11	30 s	8:00 p.m.	Vienna, Austria.....	16	20 e	48	14 n	6:00 p.m.
Johannesburg, U. of S. Af.....	28	4 e	26	12 s	7:00 p.m.	Vladivostok, U.S.S.R.....	132	0 e	43	10 n	3:00 a.m.*
Kingston, Jamaica.....	76	49 w	17	59 n	12:00 noon	Warsaw, Poland.....	21	0 e	52	14 n	6:00 p.m.
La Paz, Bolivia.....	68	22 w	16	27 s	1:00 p.m.	Wellington, New Zealand.....	174	47 e	41	17 s	5:00 a.m.*
Leeds, England.....	1	30 w	53	45 n	5:00 p.m.	Zürich, Switzerland.....	8	31 e	47	21 n	6:00 p.m.
Leningrad, U.S.S.R.....	30	18 e	59	56 n	8:00 p.m.						
Leopoldville, Belgian Congo.....	15	17 e	4	18 s	8:00 p.m.						

* On the following day.

Longitude, Latitude, Time and Magnetic Declination of U. S. and Canadian Cities

The last column shows the magnetic declination or angle which the magnetic meridian makes with the true (geographic) meridian. The value being marked w or e, the north end of the compass needle points west or east respectively of true north by that number of degrees.

City	Long. w.	Lat. n.	Time*	Dec.	City	Long. w.	Lat. n.	Time*	Dec.
Albany, N. Y.	73 45	42 40	12:00 noon	13 w	Memphis, Tenn.	90 3	35 9	11:00 a.m.	6 e
Amarillo, Tex.	101 50	35 11	11:00 a.m.	12 e	Miami, Fla.	80 12	25 46	12:00 noon	1 e
Anchorage, Alaska	149 54	61 13	7:00 a.m.	—	Milwaukee, Wis.	87 55	43 2	11:00 a.m.	2 e
Atlanta, Ga.	84 23	33 45	12:00 noon	2 e	Minneapolis, Minn.	93 14	44 59	11:00 a.m.	7 e
Atlantic City, N. J.	74 25	39 22	12:00 noon	10 w	Mobile, Ala.	88 3	30 42	11:00 a.m.	5 e
Austin, Nev.	117 4	39 29	9:00 a.m.	18 e	Montgomery, Ala.	86 18	32 21	11:00 a.m.	3 e
Baker, Oreg.	117 50	44 47	9:00 a.m.	21 e	Montpelier, Vt.	72 32	44 15	12:00 noon	16 w
Baltimore, Md.	76 38	39 18	12:00 noon	8 w	Montreal, Que.	73 35	45 30	12:00 noon	16 w
Bangor, Maine	68 47	44 48	12:00 noon	19 w	Moose Jaw, Sask.	105 31	50 37	10:00 a.m.	18 e
Birmingham, Ala.	86 50	33 30	11:00 a.m.	3 e	Nashville, Tenn.	86 47	36 10	11:00 a.m.	3 e
Bismarck, N. Dak.	100 47	46 48	11:00 a.m.	14 e	Needles, Calif.	114 36	34 50	9:00 a.m.	15 e
Boise, Idaho	116 13	43 36	10:00 a.m.	19 e	Nelson, B. C.	117 17	49 30	9:00 a.m.	23 e
Boston, Mass.	71 5	42 21	12:00 noon	15 w	New Haven, Conn.	72 55	41 19	12:00 noon	12 w
Buffalo, N. Y.	78 50	42 55	12:00 noon	7 w	New Orleans, La.	90 4	29 57	11:00 a.m.	6 e
Calgary, Alta.	114 1	51 1	10:00 a.m.	23 e	New York, N. Y.	73 58	40 47	12:00 noon	12 w
Carlsbad, N. Mex.	104 15	32 26	10:00 a.m.	13 e	Nogales, Ariz.	110 56	31 21	10:00 a.m.	14 e
Charleston, S. C.	79 56	32 47	12:00 noon	2 w	Nome, Alaska	165 30	64 25	6:00 a.m.	19 e
Charleston, W. Va.	81 38	38 21	12:00 noon	2 w	North Platte, Nebr.	100 46	41 8	11:00 a.m.	12 e
Charlotte, N. C.	80 50	35 14	12:00 noon	2 w	Oklahoma City, Okla.	97 28	35 26	11:00 a.m.	10 e
Cheyenne, Wyo.	104 52	41 9	10:00 a.m.	15 e	Ottawa, Ont.	75 43	45 24	12:00 noon	14 w
Chicago, Ill.	87 37	41 50	11:00 a.m.	2 e	Philadelphia, Pa.	75 10	39 57	12:00 noon	10 w
Cincinnati, Ohio	84 30	39 8	12:00 noon	1 e	Phoenix, Ariz.	112 4	33 29	10:00 a.m.	15 e
Cleveland, Ohio	81 37	41 28	12:00 noon	5 w	Pierre, S. Dak.	100 21	44 22	11:00 a.m.	12 e
Columbia, S. C.	81 2	34 0	12:00 noon	1 w	Pittsburgh, Pa.	79 57	40 27	12:00 noon	5 w
Columbus, Ohio	83 1	40 0	12:00 noon	2 w	Port Arthur, Ont.	89 17	48 30	12:00 noon	1 e
Dallas, Tex.	96 46	32 46	11:00 a.m.	9 e	Portland, Maine	70 15	43 40	12:00 noon	17 w
Denver, Colo.	105 0	39 45	10:00 a.m.	14 e	Portland, Oreg.	122 41	45 31	9:00 a.m.	23 e
Des Moines, Iowa	93 37	41 35	11:00 a.m.	7 e	Providence, R. I.	71 24	41 50	12:00 noon	15 w
Detroit, Mich.	83 3	42 20	12:00 noon	3 w	Quebec, Que.	71 11	46 49	12:00 noon	20 w
Dubuque, Iowa	90 40	42 31	11:00 a.m.	5 e	Raleigh, N. C.	78 39	35 46	12:00 noon	4 w
Duluth, Minn.	92 5	46 49	11:00 a.m.	7 e	Reno, Nev.	119 49	39 30	9:00 a.m.	18 e
Eastport, Maine	67 0	44 54	12:00 noon	21 w	Richfield, Utah	112 5	38 46	10:00 a.m.	17 e
El Centro, Calif.	115 33	32 38	9:00 a.m.	15 e	Richmond, Va.	77 29	37 33	12:00 noon	6 w
El Paso, Tex.	106 29	31 46	11:00 a.m.	13 e	Roanoke, Va.	79 57	37 17	12:00 noon	3 w
Eugene, Oreg.	123 5	44 3	9:00 a.m.	22 e	Sacramento, Calif.	121 30	38 35	9:00 a.m.	17 e
Fargo, N. Dak.	96 48	46 52	11:00 a.m.	10 e	St. John, N. B.	66 10	45 18	1:00 p.m.	22 w
Flagstaff, Ariz.	111 41	35 13	10:00 a.m.	15 e	St. Louis, Mo.	90 12	38 35	11:00 a.m.	5 e
Fresno, Calif.	119 48	36 44	9:00 a.m.	17 e	Salmon, Idaho	113 54	45 11	10:00 a.m.	20 e
Garden City, Kans.	100 53	37 58	10:00 a.m.	13 e	Salt Lake City, Utah	111 54	40 46	10:00 a.m.	17 e
Grand Junction, Colo.	108 33	39 5	10:00 a.m.	15 e	San Antonio, Tex.	98 33	29 23	11:00 a.m.	10 e
Grand Rapids, Mich.	85 40	42 58	11:00 a.m.	1 e	San Diego, Calif.	117 10	32 42	9:00 a.m.	15 e
Havre, Mont.	109 43	48 33	10:00 a.m.	20 e	San Francisco, Calif.	122 26	37 47	9:00 a.m.	18 e
Helena, Mont.	112 2	46 35	10:00 a.m.	19 e	San Juan, P. R.	66 10	18 30	1:00 p.m.	—
Honolulu, Hawaii	157 50	21 18	7:00 a.m.	—	Santa Fe, N. Mex.	105 57	35 41	10:00 a.m.	13 e
Hoquiam, Wash.	123 54	46 59	9:00 a.m.	23 e	Sault Ste. Marie, Mich.	84 21	46 30	11:00 a.m.	4 w
Hot Springs, Ark.	93 3	34 31	11:00 a.m.	8 e	Savannah, Ga.	81 5	32 5	12:00 noon	0
Idaho Falls, Idaho	112 1	43 30	10:00 a.m.	18 e	Scranton, Pa.	75 39	41 24	12:00 noon	10 w
Indianapolis, Ind.	86 10	39 46	11:00 a.m.	1 e	Seattle, Wash.	122 20	47 37	9:00 a.m.	23 e
Jackson, Miss.	90 12	32 20	11:00 a.m.	7 e	Shreveport, La.	93 42	32 28	11:00 a.m.	8 e
Jacksonville, Fla.	81 40	30 22	12:00 noon	1 e	Sioux Falls, S. Dak.	96 44	43 33	11:00 a.m.	11 e
Juneau, Alaska	134 24	58 18	9:00 a.m.	—	Sitka, Alaska	135 15	57 10	9:00 a.m.	30 e
Kansas City, Mo.	94 35	39 6	11:00 a.m.	9 e	Spokane, Wash.	117 26	47 40	9:00 a.m.	23 e
Key West, Fla.	81 48	24 33	12:00 noon	3 e	Springfield, Ill.	89 38	39 48	11:00 a.m.	4 e
Kingston, Ont.	76 30	44 15	12:00 noon	12 w	Springfield, Mass.	72 34	42 6	12:00 noon	14 w
Klamath Falls, Oreg.	121 44	42 10	9:00 a.m.	19 e	Springfield, Mo.	93 17	37 13	11:00 a.m.	7 e
Knoxville, Tenn.	83 56	35 57	11:00 a.m.	0	Syracuse, N. Y.	76 8	43 2	12:00 noon	11 w
Lander, Wyo.	108 40	42 50	10:00 a.m.	17 e	Tampa, Fla.	82 27	27 57	12:00 noon	2 e
Las Vegas, Nev.	115 12	36 10	9:00 a.m.	16 e	Toronto, Ont.	79 24	43 40	12:00 noon	8 w
Lewiston, Idaho	117 2	46 24	9:00 a.m.	21 e	Trinidad, Colo.	104 30	37 10	10:00 a.m.	14 e
Lincoln, Nebr.	96 40	40 50	11:00 a.m.	10 e	Victoria, B. C.	123 21	43 25	9:00 a.m.	24 e
London, Ont.	81 34	43 2	12:00 noon	5 w	Watertown, N. Y.	75 55	43 58	12:00 noon	13 w
Los Angeles, Calif.	118 15	34 3	9:00 a.m.	16 e	Wichita, Kans.	97 17	37 43	11:00 a.m.	10 e
Louisville, Ky.	85 46	38 15	11:00 a.m.	1 e	Wilmington, N. C.	77 57	34 14	12:00 noon	3 w
Manchester, N. H.	71 30	43 0	12:00 noon	16 w	Winnipeg, Man.	97 7	49 54	11:00 a.m.	11 e

* Corresponding to 12:00 noon, E.S.T.

1959 JANUARY													FEBRUARY													MARCH													APRIL												
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S																								
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MAY													JUNE													JULY													AUGUST												
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SEPTEMBER													OCTOBER													NOVEMBER													DECEMBER												
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Symbols

Perpetual Calendar 1800-2000 A.D.

Day of the month	Jan. Oct.	Apr. Jul. Jan.	Sept. Dec.	Jun.	Feb. Mar. Nov.	Aug. Feb.	May	
1 8 15 22 29.....	A	B	C	D	E	F	G	Mon.
2 9 16 23 30.....	G	A	B	C	D	E	F	Tue.
3 10 17 24 31.....	F	G	A	B	C	D	E	Wed.
4 11 18 25.....	E	F	G	A	B	C	D	Thur.
5 12 19 26.....	D	E	F	G	A	B	C	Fri.
6 13 20 27.....	C	D	E	F	G	A	B	Sat.
7 14 21 28.....	B	C	D	E	F	G	A	Sun.
EXAMPLES								
(1) Given Nov. 20, 1891, to find the day of the week. Under Nov., opposite 20, is G. In the 1891 column, opposite G is Fri., <i>ans.</i>	..... 1804 1810 1821 1827 1832 1838 1849 1855 1860 1866 1877 1883 1888 1894 1900 1906	..... 1805 1811 1817 1822 1828 1833 1839 1844 1850 1856 1861 1867 1878 1884 1889 1895 1901 1907	1800 1806 1812 1818 1824 1829 1835 1840 1846 1852 1857 1863 1868 1873 1879 1885 1890 1896 1902 1908 1913 1919 1924 1930 1935 1940 1946 1957 1963 1968 1974 1980 1985 1991 1996	1801 1807 1813 1819 1824 1830 1835 1840 1846 1852 1857 1863 1868 1874 1879 1885 1891 1896 1903 1908 1914 1919 1925 1931 1936 1942 1948 1953 1959 1965 1970 1976 1981 1987 1992 1998	1802 1813 1819 1824 1830 1836 1842 1848 1854 1865 1871 1876 1882 1893 1898 1904 1910 1916 1921 1927 1932 1938 1944 1949 1955 1960 1966 1972 1977 1982 1988 1993 1999	1803 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	..... 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	
(2) Given Fri., Oct. —, 1868, to find the possible days of the month. In the 1868 column, opposite Fri. is G. Under Oct., G gives 2, 9, 16, 23, 30, <i>ans.</i> , the Fridays of Oct., 1868.	..... 1804 1810 1821 1827 1832 1838 1849 1855 1860 1866 1877 1883 1888 1894 1900 1906	..... 1805 1811 1817 1822 1828 1833 1839 1844 1850 1856 1861 1867 1878 1884 1889 1895 1901 1907	1800 1806 1812 1818 1824 1829 1835 1840 1846 1852 1857 1863 1868 1873 1879 1885 1890 1896 1902 1908 1913 1919 1924 1930 1935 1940 1946 1957 1963 1968 1974 1980 1985 1991 1996	1801 1807 1813 1819 1824 1830 1835 1840 1846 1852 1857 1863 1868 1874 1879 1885 1891 1896 1903 1908 1914 1919 1925 1931 1936 1942 1948 1953 1959 1965 1970 1976 1981 1987 1992 1998	1802 1813 1819 1824 1830 1836 1842 1848 1854 1865 1871 1876 1882 1893 1898 1904 1910 1916 1921 1927 1932 1938 1944 1949 1955 1960 1966 1972 1977 1982 1988 1993 1999	1803 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	..... 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	
(3) Given Mon., — 5, 1811, to find the possible months. In the 1811 column, opposite Mon. is B. Opposite 5, B gives Aug., the only common-year month available, <i>ans.</i>	..... 1804 1810 1821 1827 1832 1838 1849 1855 1860 1866 1877 1883 1888 1894 1900 1906	..... 1805 1811 1817 1822 1828 1833 1839 1844 1850 1856 1861 1867 1878 1884 1889 1895 1901 1907	1800 1806 1812 1818 1824 1829 1835 1840 1846 1852 1857 1863 1868 1873 1879 1885 1890 1896 1902 1908 1913 1919 1924 1930 1935 1940 1946 1957 1963 1968 1974 1980 1985 1991 1996	1801 1807 1813 1819 1824 1830 1835 1840 1846 1852 1857 1863 1868 1874 1879 1885 1891 1896 1903 1908 1914 1919 1925 1931 1936 1942 1948 1953 1959 1965 1970 1976 1981 1987 1992 1998	1802 1813 1819 1824 1830 1836 1842 1848 1854 1865 1871 1876 1882 1893 1898 1904 1910 1916 1921 1927 1932 1938 1944 1949 1955 1960 1966 1972 1977 1982 1988 1993 1999	1803 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	..... 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	
(4) Given Sat., Feb. 29, —, to find the possible years. Under Feb., leap-year, opposite 29, is F. Opposite Sat. F gives leap-years 1812, 1840 1868, 1896, etc., <i>ans.</i>	..... 1804 1810 1821 1827 1832 1838 1849 1855 1860 1866 1877 1883 1888 1894 1900 1906	..... 1805 1811 1817 1822 1828 1833 1839 1844 1850 1856 1861 1867 1878 1884 1889 1895 1901 1907	1800 1806 1812 1818 1824 1829 1835 1840 1846 1852 1857 1863 1868 1873 1879 1885 1890 1896 1902 1908 1913 1919 1924 1930 1935 1940 1946 1957 1963 1968 1974 1980 1985 1991 1996	1801 1807 1813 1819 1824 1830 1835 1840 1846 1852 1857 1863 1868 1874 1879 1885 1891 1896 1903 1908 1914 1919 1925 1931 1936 1942 1948 1953 1959 1965 1970 1976 1981 1987 1992 1998	1802 1813 1819 1824 1830 1836 1842 1848 1854 1865 1871 1876 1882 1893 1898 1904 1910 1916 1921 1927 1932 1938 1944 1949 1955 1960 1966 1972 1977 1982 1988 1993 1999	1803 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	..... 1809 1815 1820 1826 1831 1837 1843 1848 1854 1865 1871 1876 1882 1893 1899 1905 1911 1916 1922 1927 1933 1939 1944 1950 1955 1961 1967 1972 1978 1983 1989 1995 2000	

Morning and Evening Stars and Planets in 1960

MERCURY

Morning star, Jan. 1 to Jan. 26
 Evening star, Jan. 26 to Mar. 10
 Morning star, Mar. 10 to May 17
 Evening star, May 17 to July 17
 Morning star, July 17 to Aug. 30
 Evening Star, Aug. 30 to Nov. 7
 Morning star, Nov. 7 to Dec. 31

VENUS

Morning star, Jan. 1 to June 22
 Evening star, June 22 to Dec. 31

MARS

Morning star, Jan. 1 to Dec. 30
 Evening star, Dec. 30 to Dec. 31

JUPITER

Morning star, Jan. 1 to June 20
 Evening star, June 20 to Dec. 31

SATURN

Morning star, Jan. 1 to July 7
 Evening star, July 7 to Dec. 31

Mercury may be visible over the eastern horizon before sunrise for about 10 days before and after western elongations from the sun, and similarly over the western horizon after sunset around eastern elongation times. Eastern elongations occur Feb. 23 (*Mercury* in western Pisces, south of the circlet of Pisces), June 19 (in Gemini, a few degrees south of Pollux), and Oct. 15 (in western Libra, roughly south of Alpha Librae). Western elongations occur Apr. 7 (in northeastern Aquarius), Aug. 5 (in Gemini, south of Pollux), and Nov. 24 (in western Libra, roughly north of Alpha Librae).

Venus is morning star for the first 6 months and is therefore seen in the east before sunrise. Beginning in January, it goes from Libra to Sagittarius, passing north of Antares; by Mar. 1 it has arrived at central Capricornus; in early April it is at the vernal equinox point, near the circlet of Pisces; by May 1 *Venus* is near the border of Aries and approaching the sun in apparent position, coming to superior conjunction June 22. After this it is an evening planet and becomes visible after sunset about Aug. 1 in Leo, passing just north of Regulus on Aug. 8. By mid-Sept. it is in Virgo, going north of Spica, and in mid-Oct. it is in Libra. It passes north of Antares in late October and by mid-Dec. it is in the middle of Capricornus, as a brilliant object. On Jan. 21 *Venus* is 1° north of Jupiter; on Feb. 7 it is very close to and north of Saturn; and on Nov. 18 it is 2° south of Jupiter.

Mars is a morning planet all the year except the last day. In January it rises before the sun and is seen between the sun and Antares. Going eastward, it follows

the sun and by Mar. 1 is in Capricornus. By May 1 it is south of the circlet of Pisces, and by July 1 it has progressed to western Aries; by Sept. 1 it is in Taurus, northeast of Aldebaran; on Nov. 21 it arrives at a stationary point southwest of Pollux, after which it retrogrades, moving slowly westward for the rest of the year. On Jan. 31 Mars is 1° south of Saturn.

Jupiter is morning star for the first 6 months. It moves from Ophiuchus, northeast of Antares, to a point in western Sagittarius by mid-April, after which it retrogrades until Aug. 20 into Ophiuchus again. After that it goes eastward slowly and at the end of the year is in Sagittarius, north of the dipper.

Saturn is a morning object in Sagittarius, north of the dipper, for the first 6 months, and evening star after July 7. In early January it is too close to the sun to be seen, but gradually becomes visible after that. From May to mid-Sept. it is moving slowly westward, after which it resumes its regular eastward movement to the end of the year. On Nov. 28 Saturn is about 2° north of Venus in conjunction.

Uranus is in Leo during the year, moving back and forth slowly, and situated north and west of Regulus. It is a field-glass object, but at opposition with the sun in early February, it may be glimpsed with the unaided eye. *Neptune*, an object for small telescopes or even binoculars, is in western Libra at the Virgo boundary, east and north of Alpha Librae. At opposition in April it is a little brighter than 8th magnitude. *Pluto*, not brighter than magnitude 15, is in Leo during the year, a few degrees east of Gamma Leonis. It is seen only in a large instrument.

Phases of the Moon for 1960

	E. S. T.			C. S. T.			M. S. T.			P. S. T.		
	d	h	m	d	h	m	d	h	m	d	h	m
First Quarter JANUARY.....	5	1	53 pm	5	12	53 pm	5	11	53 am	5	10	53 am
Full Moon.....	13	6	51 pm	13	5	51 pm	13	4	51 pm	13	3	51 pm
Last Quarter.....	21	10	1 am	21	9	1 am	21	8	1 am	21	7	1 am
New Moon.....	28	1	16 am	28	0	16 am	27	11	16 pm	27	10	16 pm
First Quarter FEBRUARY.....	4	9	27 am	4	8	27 am	4	7	27 am	4	6	27 am
Full Moon.....	12	12	24 pm	12	11	24 pm	12	10	24 am	12	9	24 am
Last Quarter.....	19	6	48 pm	19	5	48 pm	19	4	48 pm	19	3	48 pm
New Moon.....	26	1	24 pm	26	12	24 pm	26	11	24 am	26	10	24 am
First Quarter MARCH.....	5	6	6 am	5	5	6 am	5	4	6 am	5	3	6 am
Full Moon.....	13	3	26 am	13	2	26 am	13	1	26 am	13	0	26 am
Last Quarter.....	20	1	41 am	20	0	41 am	19	11	41 pm	19	10	41 pm
New Moon.....	27	2	38 am	27	1	38 am	27	0	38 am	26	11	38 pm
First Quarter APRIL.....	4	2	5 am	4	1	5 am	4	0	5 am	3	11	5 pm
Full Moon.....	11	3	28 pm	11	2	28 pm	11	1	28 pm	11	12	28 pm
Last Quarter.....	18	7	57 am	18	6	57 am	18	5	57 am	18	4	57 am
New Moon.....	25	4	45 pm	25	3	45 pm	25	2	45 pm	25	1	45 pm

Phases of the Moon for 1960 (Contd.)

	E. S. T.			C. S. T.			M. S. T.			P. S. T.		
	d	h	m	d	h	m	d	h	m	d	h	m
First Quarter MAY.....	3	8	1 pm	3	7	1 pm	3	6	1 pm	3	5	1 pm
Full Moon.....	11	0	43 am	10	11	43 pm	10	10	43 pm	10	9	43 pm
Last Quarter.....	17	2	55 pm	17	1	55 pm	17	12	55 pm	17	11	55 am
New Moon.....	25	7	27 am	25	6	27 am	25	5	27 am	25	4	27 am
First Quarter JUNE.....	2	11	2 am	2	10	2 am	2	9	2 am	2	8	2 am
Full Moon.....	9	8	2 am	9	7	2 am	9	6	2 am	9	5	2 am
Last Quarter.....	15	11	36 pm	15	10	36 pm	15	9	36 pm	15	8	36 pm
New Moon.....	23	10	27 pm	23	9	27 pm	23	8	27 pm	23	7	27 pm
First Quarter JULY.....	1	10	49 pm	1	9	49 pm	1	8	49 pm	1	7	49 pm
Full Moon.....	8	2	37 pm	8	1	37 pm	8	12	37 pm	8	11	37 am
Last Quarter.....	15	10	43 am	15	9	43 am	15	8	43 am	15	7	43 am
New Moon.....	23	1	31 pm	23	12	31 pm	23	11	31 am	23	10	31 am
First Quarter.....	31	7	39 am	31	6	39 am	31	5	39 am	31	4	39 am
Full Moon AUGUST.....	6	9	41 pm	6	8	41 pm	6	7	41 pm	6	6	41 pm
Last Quarter.....	14	0	37 am	13	11	37 pm	13	10	37 pm	13	9	37 pm
New Moon.....	22	4	16 am	22	3	16 am	22	2	16 am	22	1	16 am
First Quarter.....	29	2	23 pm	29	1	23 pm	29	12	23 pm	29	11	23 am
Full Moon SEPTEMBER.....	5	6	19 am	5	5	19 am	5	4	19 am	5	3	19 am
Last Quarter.....	12	5	20 pm	12	4	20 pm	12	3	20 pm	12	2	20 pm
New Moon.....	20	6	13 pm	20	5	13 pm	20	4	13 pm	20	3	13 pm
First Quarter.....	27	8	13 pm	27	7	13 pm	27	6	13 pm	27	5	13 pm
Full Moon OCTOBER.....	4	5	17 pm	4	4	17 pm	4	3	17 pm	4	2	17 pm
Last Quarter.....	12	12	26 pm	12	11	26 am	12	10	36 am	12	9	26 am
New Moon.....	20	7	3 am	20	6	3 am	20	5	3 am	20	4	3 am
First Quarter.....	27	2	34 am	27	1	34 am	27	0	34 am	26	11	34 pm
Full Moon NOVEMBER.....	3	6	58 am	3	5	58 am	3	4	58 am	3	3	58 am
Last Quarter.....	11	8	48 am	11	7	48 am	11	6	48 am	11	5	48 am
New Moon.....	18	6	47 pm	18	5	47 pm	18	4	47 pm	18	3	47 pm
First Quarter.....	25	10	42 am	25	9	42 am	25	8	42 am	25	7	42 am
Full Moon DECEMBER.....	2	11	25 pm	2	10	25 pm	2	9	25 pm	2	8	25 pm
Last Quarter.....	11	4	39 am	11	3	39 am	11	2	39 am	11	1	39 am
New Moon.....	18	5	47 am	18	4	47 am	18	3	47 am	18	2	47 am
First Quarter.....	24	9	30 pm	24	8	30 pm	24	7	30 pm	24	6	30 pm

The Sun

There are countless millions of far distant, superheated, self-luminous gaseous bodies called stars and each one is in itself a sun. Our Sun—the star around which our whole solar system revolves—is at a mean distance of 93,003,000 miles from the Earth, has a diameter of 865,390 miles, a surface temperature of about 11,000° F. and an interior temperature estimated at millions of degrees. It has a surface area approximately 12,000 times that of the Earth and in volume or bulk it is about 1,306,000 times the size of the Earth. It is a star of average size and temperature.

The Sun rotates on its axis and, by observation of Sun-spots (great whirling storms in the Sun's atmosphere) and Faculae (bright streaks or areas on the Sun's surface), astronomers have discovered that the rotational speed varies from approximately 24½ days at its equator to approximately 34 days near its poles. The

Sun is just one star of the great Milky Way Galaxy that is rotating on its galactic axis at a rate that gives the Sun a galactic traveling speed of 175 miles per second. Furthermore, the Sun is moving toward a point known as "the apex of the Sun's way" in the constellation Hercules at a speed of about 12 miles per second.

What we see when we look at the Sun is the glowing surface called the Photosphere. Extending above this surface is the Sun's atmosphere consisting of two layers, one extending outward for a few hundred miles from the Sun's surface and called the Reversing Layer for spectroscopic reasons, the other an outer layer extending several thousand miles and called the Chromosphere because of its reddish color due mostly to superheated hydrogen, helium and calcium. Solar "prominences" occasionally burst out from this layer and extend hundreds of thousands of miles above the Sun's surface. Beyond these

The Brightest Stars

Star	Constellation	Position, 1950		Mag.	Dist.	On meridian 9 p.m.	
		R.A.	Dec.				
		h	m	°		l.-y.	
Sirius.....	Canis Major.....	6	42.9	-16 39	-1.6	8	Feb. 16
Canopus.....	Carina.....	6	22.8	-52 40	-0.9	650	Feb. 11
Alpha Centauri.....	Centaurus.....	14	36.2	-60 38	+0.1	4	June 16
Vega.....	Lyra.....	18	35.2	+38 44	0.1	23	Aug. 15
Capella.....	Auriga.....	5	13.0	+45 57	0.2	42	Jan. 24
Arcturus.....	Boötes.....	14	13.4	+19 27	0.2	32	June 10
Rigel.....	Orion.....	5	12.1	- 8 15	0.3	545	Jan. 24
Procyon.....	Canis Minor.....	7	36.7	+ 5 21	0.5	10	Mar. 2
Achernar.....	Eridanus.....	1	35.9	-57 29	0.6	70	Nov. 30
Beta Centauri.....	Centaurus.....	14	0.3	-60 8	0.9	130	June 7
Altair.....	Aquila.....	19	48.3	+ 8 44	0.9	18	Sept. 3
Betelgeuse.....	Orion.....	5	52.5	+ 7 24	0.9	300	Feb. 3
Aldebaran.....	Taurus.....	4	33.0	+16 25	1.1	54	Jan. 14
Spica.....	Virgo.....	13	22.6	-10 54	1.2	190	May 28
Pollux.....	Gemini.....	7	42.3	+28 9	1.2	31	Mar. 3
Antares.....	Scorpius.....	16	26.3	-26 19	1.2	170	July 14
Fomalhaut.....	Piscis Austrinus.....	22	54.9	-29 53	1.3	27	Oct. 20
Deneb.....	Cygnus.....	20	39.7	+45 6	1.3	465	Sept. 16
Regulus.....	Leo.....	10	5.7	+12 13	1.3	70	Apr. 9
Beta Crucis.....	Crux.....	12	44.8	-59 25	1.5	465	May 18
Eta Carinae.....	Carina.....	10	43.1	-59 25	1-7	...	Apr. 17
Alpha-one Crucis.....	Crux.....	12	23.8	-62 49	1.6	150	May 13
Castor.....	Gemini.....	7	31.4	+32 0	1.6	44	Feb. 28
Gamma Crucis.....	Crux.....	12	28.4	-56 50	1.6	...	May 15
Epsilon Canis Majoris.....	Canis Major.....	6	56.7	-28 54	1.6	325	Feb. 19
Epsilon Ursae Majoris.....	Ursa Major.....	12	51.8	+56 14	1.7	50	May 20
Bellatrix.....	Orion.....	5	22.4	+ 6 18	1.7	215	Jan. 27
Lambda Scorpii.....	Scorpius.....	17	30.2	-37 4	1.7	205	July 30
Epsilon Carinae.....	Carina.....	8	21.5	-59 21	1.7	325	Mar. 13
Mira.....	Cetus.....	2	16.8	- 3 12	2-9	250	Dec. 11

layers of solar atmosphere and extending to great height is the outermost observable solar feature, the magnificent Corona of exceedingly slight density that provides an awesome spectacle for observers during total eclipses of the Sun.

Comets

In ancient times comets were supposed to be omens of sudden death, war, revolution or other dire events in human affairs and practically nothing was known of their true nature. They still offer puzzling problems to modern astronomers and, with about 1000 listed, new ones are being discovered and charted each year. In general, comets consist of a nucleus (sometimes lacking) surrounded by a head or "coma" (from the Greek word for hair because of its hazy appearance) from which extends the great tail that makes the passage of a comet through our skies such a striking spectacle. Comets come in varying sizes but the average diameter of the heads of a large number of observed comets is about 80,000 miles and the tail length may stretch out to more than 100,000,000 miles. The density of comets is so low, however, that we can see the stars through them and there is more actual material in one cubic inch of ordinary air than in 2000 cubic miles of the tail of a comet.

The luminous tails of comets were believed, for many centuries, to be merely clouds high in our atmosphere. Tycho Brahe, eccentric Danish astronomer, proved that the comet he observed in 1577 was a celestial object far beyond the limit of the Earth's atmosphere. But the great forward step in the study of comets came when Edmund Halley, who became England's Astronomer Royal, carefully observed a comet in 1682, checked with previous observations, calculated its orbit and predicted its return to our skies in 1758 or 1759. Halley died in 1742 but the comet, now named after him, reappeared on schedule and a search through ancient records indicated that it had been observed in repeated appearances as far back as 240 B.C. Its last appearance was marked by its perihelion passage in 1910 and its next visit to our skies will occur in 1986. Halley's fulfilled prediction was the first definite proof that comets have regular orbits and time schedules or are, as the astronomers say, "periodic". The known "periods" (time intervals between appearances) of comets vary from the 3.3 years of Encke's Comet to thousands of years for wider travelers.

A curious thing about comets is that their tails always trail from the head in a direction away from the Sun, so that when a comet is moving away from the Sun, the

20 Famous Comets

Year and no.	Name of comet	Period, years
1744	De Chéseaux's Comet.....	.....
1806	Biela's Comet.....	6.7
1811 I	Great Comet of 1811.....	3000
1812	Di Vico's Comet.....	70.7
1815	Olbers' Comet.....	74.0
1819 I	Encke's Comet.....	3.3
1819	Pons-Winnecke Comet.....	6.0
1835 III	Halley's Comet.....	76.3
1843 I	Great Comet of 1843.....	512.4
1844 II	Great Comet of 1844.....	102,050
1858 VI	Donati's Comet.....	2,040 (†)
1864 II	Great Comet of 1864.....	2,800,000
1871 III	Tuttle's Comet.....	13.8
1874 III	Coggia's Comet.....	6,000 (†)
1879	Brorsen's Comet.....	5.6
1881 II	Tebbutt's Comet.....	.....
1889 VI	Swift's 2nd Comet.....	7.0
1892 III	Holmes' Comet.....	6.9
1923	d'Arrest's Comet.....	6.6
1925 II	Comet Schwassmann-Wachmann.....	16.2

tail stretches out in front of the head. A comet's tail is so tenuous as to be almost a vacuum. The Earth passed through the tail of Halley's Comet in May, 1910, and on that occasion astronomers heard nothing, felt nothing and saw nothing to indicate that such passage had any observable effect on the Earth.

The Polar Auroras

It has been definitely established that Sun-spots are the direct cause of the greatest electrical show on Earth, a double feature, the Aurora Borealis (Northern Lights) and the Aurora Australis (Southern Lights). Sun-spots are magnetic storms of vast dimensions on the surface of the Sun and they shoot out electrified particles into space. Those that come toward the Earth are drawn toward the Earth's magnetic poles and consequently these magnetic poles are the radiating centers of those spectacular electromagnetic displays in the sky that we commonly call the "Northern Lights" or the "Southern Lights", depending upon whether we see them in the northern or southern hemisphere. The electrical particles from the Sun-spots strike the upper regions of our atmosphere where the component gases (nitrogen, oxygen and extremely minor amounts of argon, helium, neon, hydrogen and carbon dioxide) are very much rarefied and cause them to vibrate and glow in colors characteristic of the various elements, just as a neon sign glows when an electric charge is passed through it. The Sun-spots that cause auroral displays also cause the magnetic storms that interfere with radio reception, telephone, telegraph and cable traffic and other electromagnetic devices such as compasses and various aviation accessories.

There is an almost infinite variety to the auroral display. The lights may sweep across the sky in waves, in streamers or in folds like draped curtains. Or it may be a stationary glow. Sometimes there is little or no color in these waves, sheets or streamers of light. At other times the lights may be rich in red or green or pastel shades. Rose color and lavender and violet and purple are common. Blue is rare but has been seen. The "Northern Lights" have been seen as far south as New Orleans and the Florida peninsula and the "Southern Lights" have been seen as far north as New Zealand and Australia, but the maximum occurrence of these auroral displays is along the borders of the Arctic and Antarctic regions. Since these are atmospheric displays, our atmosphere must extend to the extreme height at which auroral lights are observed. Prof. Carl Störmer of the University of Oslo found this to be about 600 miles. He further found that no auroral lights came closer to the Earth's surface than 50 or 60 miles.

The Change of Seasons

It is enough to state that the earth is nearer to the sun in January than it is in July to convince those who live in the northern hemisphere that there must be some other explanation than that for the seasonal changes on our globe. The reason for the change in seasons is that the axis of rotation of the earth is inclined to the perpendicular of the plane of its orbit around the sun at an angle of approximately $23\frac{1}{2}^\circ$, so there is a proportional shifting of the angle of the sun's rays falling on different portions of the earth's surface at different times of the year.

On or about June 21, the north end of the earth's axis is inclined to its limit toward the sun. In the northern hemisphere this is our summer solstice. We then have our longest daylight period and a maximum of heat and light from the sun, whose perpendicular rays are falling on the Tropic of Cancer, $23\frac{1}{2}^\circ$ north of the equator. Six months later, on or about Dec. 22, the earth has reached a position in its orbit that finds the north end of its axis inclined at its maximum away from the sun. This is our winter solstice. We then have our shortest daylight period and a minimum of heat and light from the sun, which is over the Tropic of Capricorn, $23\frac{1}{2}^\circ$ south of the equator. Conditions are reversed in the southern hemisphere for obvious reasons. Their winter is our summer; their summer is our winter. Twice a year, at the equinoxes in March and September, the sun is on the equator, the day is of equal length all over the world and each hemisphere receives the same amount of light and heat from the rays of the sun.

If the effect in the change of the angle of the sun's rays on the earth's surface were instantaneous, our coldest period would be at the winter solstice and our warmest period at the summer solstice, but because of the blanket of atmosphere

around the earth and the cumulative effect in the heating or cooling of the earth's surface, we have "the lag of the seasons", which brings our warmest and coldest periods some 5 or 6 weeks after the sun is "farthest north" or "farthest south".

Seasons for the Northern Hemisphere, 1960 Eastern Standard Time

Mar. 20, 9:43 A.M., sun enters sign of Aries; spring begins.

June 21, 4:43 A.M., sun enters sign of Cancer; summer begins.

Sept. 22, 8:00 P.M., sun enters sign of Libra; autumn begins.

Dec. 21, 3:27 P.M., sun enters sign of Capricornus; winter begins.

Planet Table

	Mean distance from sun in millions of miles	Period of revolution around the sun	Eccentricity of orbit	Inclination to ecliptic	Diameter	Period of rotation on axis	Inclination of equator to orbit plane	Surface gravity (earth = 1)	Density H ₂ O = 1	Oblateness	Mean velocity in orbit	Max. stellar mag.
					miles						mi./sec.	
Sun.....				°	865,400	24 ^d 54 ^h 4 ^m	7.2	28	1.4	0	.....	-26.7
Moon.....		(27 ^d 32 ^m 22 ^s)*	0.05	5 8	2,160	27 ^d 32 ^m 22 ^s	6.7	0.16	3.3	0	0.63	-12.6
Mercury....	36.00	87 ^d 9 ^h 56 ^m	0.21	7 0	3,100	88 ^d	7	0.28	3.8	0	30	-1.2
Venus.....	67.27	224 ^d 7 ^h 01 ^m	0.01	3 24	7,700	24 ^h 37 ^m	1	0.85	5.1	0	22	-4.4
Earth.....	93.00	365 ^d 256 ^m	0.02	0 0	7,927	23 ^h 56 ^m	23.4	1.00	5.5	1/297	18.5	.....
Mars.....	141.71	1 ^{yr} 88 ^d 1 ^m	0.09	1 51	4,200	24 ^h 37 ^m	25.2	0.38	4.0	1/192	15	-2.8
Jupiter....	483.88	11 ^{yr} 86 ^d	0.05	1 18	88,700	9 ^h 50 ^m 4 ^s	3.1	2.6	1.3	1/15	8	-2.5
Saturn.....	887.14	29 ^{yr} 458 ^d	0.06	2 29	75,100	10 ^h 14 ^m 4 ^s	26.8	1.2	0.7	1/9.5	6	-0.4
Uranus.....	1783.98	84 ^{yr} 01 ^m 3 ^s	0.05	0 46	32,000	10 ^h 34 ^m	98	1.1	1.3	1/14	4	+5.7
Neptune....	2795.46	164 ^{yr} 794 ^d	0.01	1 46	27,700	15 ^h 8 ^m	29	1.4	2.2	1/40	3	+7.8
Pluto.....	3675.27	248 ^{yr} 430 ^d	0.25	17 9	3,600	??	??	??	?	??	<3	+14

* Period of revolution around the earth. † This is the rotation at the equator. ‡ Rotation of Venus is uncertain but is probably a few weeks. § The equatorial diameters of the earth, Jupiter, and Saturn are given; polar diameters are: earth, 7900.0 mi.; Jupiter 82,789 mi.; Saturn 67,170 mi.

SATELLITES. The number of known moons in the solar system is now as follows: for the earth 1; Mars 2; Jupiter 12; Saturn 9; Uranus 5; Neptune 2.

OTHER DATA ON THE EARTH: Equatorial circumference, 24,902.4 mi.; total area, 196,949,970 sq. mi.; mass, 6.6 sextillion tons; mean diameter, 7,917.8 mi.

The Moon

Mars has 2 small satellites or moons, Jupiter has 12, Saturn 9, Uranus 5, and Neptune 2; but the earth has one comparatively large satellite, commonly called the moon. It is a globe 2,160 mi. in diameter with a surface deeply pitted by great craters. It has no atmosphere that astronomers can detect and shines only by reflected light of the sun. Though it seems very bright to us at "full moon," it reflects only about 7% of the light from the sun.

The orbit of the moon is elliptical, with the earth at one focus. The distance of the moon from the earth varies from 221,463 mi. (perigee) to 252,710 mi. (apogee), the average being 238,857 mi. The curious thing about the moon is that it revolves around the earth in 27 days, 7 hr., 43 min., 11.47 sec., and rotates on its axis in exactly the same time, which is why we always see the same side of the moon. Because of what are known as "librations in latitude and

longitude" and also a "diurnal libration," we do see "around the edge of the moon" at different times. In this manner a total of 59% of the moon's surface has been observed, but the other 41% never has been seen by the human eye.

Although the moon revolves around the earth in approximately 27½ days, it is, on the average, a matter of 29½ days (29 days, 12 hr., 44 min., 2.78 sec.) from one new moon to the other, because the earth is moving around the sun while the moon is moving around the earth and the "new moon" depends upon the relative positions of the 3 bodies.

If the planes of orbit of the earth and the moon coincided, there would be an eclipse of the moon at every "full moon" and an eclipse of the sun at every "new moon," but the 5° angle between the planes of orbit of the earth and the moon causes the moon on most of its revolutions to miss the earth's shadow and the moon's

Astronomical Constants

1 light-year	5,880,000,000,000 mi.
velocity of light	186,272 mi./sec.
astronomical unit or distance earth-to-sun	93,003,000 mi.
mean distance, earth to moon	238,860 mi.
general precession	50".26
obliquity of the ecliptic	23° 27' 8".26—0".4684(t—1900) *
equatorial radius of the earth	3963.34 statute mi.
polar radius of the earth	3949.99 statute mi.
earth's mean radius	3958.89 statute mi.
oblateness of the earth	$\frac{1}{297.0}$
equatorial horizontal parallax of the moon	57' 2".70
earth's mean velocity in orbit	18.5 mi./sec.
sidereal year	365 ^d .2564
tropical year	365 ^d .2422
sidereal month	27 ^d .3217
synodic month	29 ^d .5306
sidereal day	23 ^h 56 ^m 4 ^s .091 of mean-solar time
mean solar day	24 ^h 3 ^m 56 ^s .555 of sidereal time

* t refers to the year in question, for example 1958.

shadow on most trips to miss falling onto the earth.

The tidal effects of the moon are well known. The "spring tides" occur at the "full moon" and "new moon" and the "neap tides" at first quarter and last quarter.

Meteors and Meteorites

Meteorites are meteors that have come down to Earth. Meteors are masses of mineral or metal or both that plunge into the Earth's atmosphere at great speed and become incandescent from the resultant friction so that they are seen in the sky as "fireballs" (bolides) or "shooting stars". The "fireballs" are the larger, make a greater flash across the sky and sometimes explode. Meteors come in all sizes but most of them verge on the microscopic and burn up completely in the flash that makes them visible from 40 to 60 miles above the Earth's surface. Millions of them enter our atmosphere every twenty-four hours and probably not more than one or two a day survive to strike the ground as meteorites.

The largest meteorite ever found is 16-cated near Grootfontein, Southwest Africa, and its weight is estimated between 50 and 70 tons. The second largest meteorite (the Ahnighito, weight 34 tons) was found by Admiral Peary, Arctic explorer, at Cape York, Greenland, and is now on exhibition in the Hayden Planetarium, New York City. The largest meteorite found on United States soil is the Willamette (weight 15½ tons), which fell near Portland, Oreg., and is now in the American Museum of Natural History, New York City.

Craters produced by the fall of meteorites have been found in many countries. The first to be recognized and the largest known is Meteor Crater in Arizona, a depression about 4,000 feet in diameter, about 600 feet deep, and with exterior walls rising 150 feet above the surrounding plain. Me-

teor craters have been found near Odessa, Texas; Haviland, Kansas; in the Arabian Desert; in Central Australia and—a notable group of fifty or more—in the region of the Stony Tunguska River in northern Siberia.

Many meteors travel in swarms, believed in some cases to be disintegrated comets. The Perseid shower that occurs annually Aug. 10–14 is thought by some astronomers to be all that remains of Tuttle's Comet and the Leonid shower, which reaches a maximum in mid-November every 33 years, similarly is suspected of being what is left of Tempel's Comet. The Leonid shower of 1833 was the greatest meteor display of which astronomers have record.

Eclipses in 1960

1. *Total eclipse of the moon*, Mar. 13. The beginning is visible, in general, from North and South America, the Atlantic and Pacific Oceans, and the west coast of Europe and north Africa. The end is visible in North America, the western half of South America, the Pacific Ocean, and parts of Australia and New Zealand. The earth's shadow on the moon covers 1.5 lunar diameters. The phenomena are:

Moon enters penumbra	0:34 A.M., E.S.T.
Moon enters umbra	1:38
Total eclipse begins	2:41
Mid-eclipse	3:28
Total eclipse ends	4:16
Moon leaves umbra	5:18
Moon leaves penumbra	6:22 A.M.

2. *Partial eclipse of the sun*, Mar. 27, a relatively unimportant eclipse, covering east Antarctica and southern Australia. Maximum eclipse occurs near King George V Land, Antarctica, and 0.7 of the sun's diameter is obscured.

3. *Total eclipse of the moon*, Sept. 5. The beginning is visible, in general, in

North America, the western half of South America, the Pacific Ocean, and parts of Australia and New Zealand; the end is visible from the west coast of North America, the Pacific, Australia and New Zealand, and Asia. The earth's shadow covers 1.4 lunar diameters. The phenomena are:

Moon enters penumbra	3:37 A.M., E.S.T.
Moon enters umbra	4:36
Total eclipse begins	5:38
Mid-eclipse	6:22
Total eclipse ends	7:06
Moon leaves umbra	8:07
Moon leaves penumbra	9:07 A.M.

4. *Partial eclipse of the sun*, Sept. 20, visible in North America, except all along the eastern zone, and visible in the north-eastern tip of Asia. The maximum eclipse covers 0.6 of the sun's disc and is seen from the coast of Baffin Island in the Canadian archipelago. In the middle west coast of the U. S., mid-eclipse occurs about 3:45 P.M., P.S.T., and the duration of the partial eclipse here is 1^h45^m.

Important Meteor Showers

Date	Meteor stream	Radiant in constellation
Jan. 1-4	Quadrantids.....	Boötes
Feb. 5-10	Alpha Aurigids.....	Auriga
Mar. 10-12	Zeta Boötids.....	Boötes
Apr. 19-23	Lyrids.....	Hercules
May 1-6	May Aquarids.....	Aquarius
May 30	Eta Pegasids.....	Pegasus
June 27-30	Pons-Winnecke meteors.....	Draco
July 14	Alpha Cygnids.....	Cygnus
July 26-31	Delta Aquarids.....	Aquarius
Aug. 10-14	Perseids.....	Cassiopeia
Aug. 10-20	Kappa Cygnids.....	Cygnus
Aug. 21-31	Zeta Draconids.....	Draco
Sept. 22	Alpha Aurigids.....	Auriga
Oct. 2	Quadrantids.....	Boötes
Oct. 9	Giacobinids.....	Draco
Oct. 18-23	Orionids.....	Orion
Nov. 14-18	Leonids.....	Leo
Dec. 10-13	Geminids.....	Gemini

The Atmosphere

The atmosphere of the Earth—the blanket of air that surrounds our globe and is essential to life—is of interest to astronomers because of its effect on the light that comes to us from heavenly bodies. Air has weight and volume. It refracts (bends or changes the direction of) light rays that enter it. Due to this refraction, we are able to see the Sun and the Moon before they rise and after they set. The “twinkling” of the stars is caused by convection currents in the air that have a rapidly changing refractive effect on the light from the stars. Our twilight is produced by the diffusion in the atmosphere of light from the Sun when it is below the horizon. Meteors become visible when they are heated to incandescence by friction with

the atmosphere when, from outer space, they plunge into it at terrific speed.

Prof. Carl Störmer of the University of Oslo measured the height of the atmosphere and found it to be more than 600 miles, but about half of it by weight is below 18,000 feet. Although we may remark blandly that something is “as light as air,” the Earth's atmosphere in bulk is of such enormous weight that at sea level it exerts a pressure of approximately 14.7 pounds per square inch. At higher levels, of course, the pressure is less.

Chemically, the atmosphere is composed of nitrogen (approximately 78 per cent by volume), oxygen (approximately 21 per cent by volume), and extremely minor amounts (about 1 per cent in all by volume) of argon, neon, helium, hydrogen and carbon dioxide. There is also present in the air a varying amount of water vapor, which is known as humidity and is distressing when the percentage is high in warm weather.

The First 10 Minor Planets

Name	Mag.	Discovery
1. Ceres.....	7.4	1801
2. Pallas.....	8.0	1802
3. Juno.....	8.7	1804
4. Vesta.....	6.5	1807
5. Astraea.....	9.9	1845
6. Hebe.....	8.5	1847
7. Iris.....	8.4	1847
8. Flora.....	8.9	1847
9. Metis.....	8.9	1848
10. Hygiea.....	9.5	1849

Notable Telescopes of the World

Refractor Telescopes

Size in inches	Observatory	Location
40	Yerkes	Williams Bay, Wis.
36	Lick	Mt. Hamilton, Calif.
32.7	Paris (Univ. of)	Meudon, France
31.5	Astrophysical	Potsdam, Germany
30	Allegheny	Pittsburgh, Pa.
30	Bischoffshelm	Nice, France
30	Poulkova	Leningrad, U.S.S.R.

Reflector Telescopes

200	Palomar	Palomar Mt., Calif.
120	Lick	Mt. Hamilton, Calif.
100	Mt. Wilson	Pasadena, Calif.
82	McDonald	Mt. Locke, Texas
74	Dunlap	Richmond Hill, Ont.
72	Lora Ross (dismantled)	Parsonstown, Ireland
72	Dominion Astrophysical	Victoria, B. C.
69	Perkins	Delaware, Ohio
61	Harvard	Harvard, Mass.
60	Bloemfontein	Bloemfontein, U. of S. Af.
60	Mt. Wilson	Pasadena, Calif.
60	Córdoba	Bosque Alegre, Argentina

WORLD GEOGRAPHY AND MISCELLANEOUS

Explorations and Discoveries

Africa			
Country or place	Event	Explorer or discoverer	Date
Sierra Leone	Visited	Hanno, Carthaginian seaman	c. 520 B.C.
Congo River	Mouth discovered	Cão, Portuguese navigator	c. A.D. 1484
Cape of Good Hope	Doubled	Bartholomeu Diaz, Portuguese navigator	1488
Gambia River	Explored	Mungo Park, Scottish explorer	1795
Sahara Desert	Crossed	Denham and Clapperton, English explorers	1822-23
Zambezi River	Discovered	Livingstone, Scottish explorer	1851
Sudan	Explored	Barth, German explorer	1852-55
Victoria Falls	Discovered	Livingstone	1855
Lake Tanganyika	Discovered	Burton and Speke, British explorers	1858
Congo River	Traced	Stanley, British explorer	1877
Asia			
Punjab (India)	Visited	Alexander the Great	327 B.C.
China	Visited	Marco Polo, Italian traveler	c. A.D. 1272
Tibet	Visited	Odoric, Italian monk	c. 1325
Southern China	Explored	Conti, Italian adventurer	c. 1440
India	Visited by Cape route	Vasco da Gama, Portuguese navigator	1498
Japan	Visited	St. Francis Xavier of Spain	1549
Arabia	Explored	Niebuhr, German explorer	1762
China	Explored	Richthofen, German scientist	1868
Mongolia	Explored	Przhevalsky, Russian explorer	1870-73
Central Asia	Explored	Hedin, Swedish scientist	1890-1908
Europe			
Shetland Islands	Visited	Pytheas of Massilia (Marseille)	c. 325 B.C.
North Cape	Rounded	Ottar, Norwegian explorer	c. A.D. 870
Iceland	Colonized	Norwegian noblemen	c. 890-900
North America			
Greenland	Colonized	Eric the Red, Norwegian navigator	c. A.D. 985
Labrador; Nova Scotia (?)	Discovered	Lef Ericsson, Norse explorer	1000
West Indies	Discovered	Christopher Columbus, Italian navigator	1492
North America	Coast discovered	John Cabot, for British	1497
Pacific Ocean	Discovered	Balboa, Spanish explorer	1513
Florida	Explored	Ponce de León, Spanish explorer	1513
Mexico	Conquered	Cortez, Spanish adventurer	1519
St. Lawrence River	Discovered	Cartier, French navigator	1534
Southwest U. S.	Explored	Coronado, Spanish explorer	1540-42
Colorado River	Discovered	Alarcón, Spanish explorer	1540
Mississippi River	Discovered	Hernando de Soto, Spanish explorer	1541
Frobisher Bay	Discovered	Frobisher, English seaman	1576
Maine Coast	Explored	Champlain, French explorer	1604
Jamestown, Va.	Settled	Smith, English colonist	1607
Hudson River	Explored	Hudson, English navigator	1609
Hudson Bay (Canada)	Discovered	Hudson	1610
Baffin Bay	Discovered	Baffin, English navigator	1616
Lake Michigan	Navigated	Nicolet, French explorer	1634
Arkansas River	Discovered	Marquette and Joliet, French explorers	1673
Mississippi River	Explored	LaSalle, French explorer	1682
Bering Strait	Discovered	Bering, Danish explorer	1728
Alaska	Discovered	Bering	1741
Mackenzie River (Canada)	Discovered	Mackenzie, Scottish-Canadian explorer	1789
Northwest U. S.	Explored	Lewis and Clark	1804-06

Country or place	Event	Explorer or discoverer	Date
Northeast Passage (Arctic Ocean)	Navigated	Nordenskjold, Swedish explorer	1879
Greenland	Explored	Peary, American explorer	1892
Northwest Passage	Navigated	Amundsen, Norwegian explorer	1906
South America			
Continent	Visited	Columbus, Italian navigator	1498
Brazil	Discovered	Cabral, Portuguese explorer	1500
Peru	Conquered	Pizarro, Spanish explorer	1532-33
Amazon River	Explored	Orellana, Spanish explorer	1541
Cape Horn	Discovered	Schouten, Dutch navigator	1615
Oceania			
New Guinea	Visited	Menezes, Portuguese explorer	1526
Australia	Visited	Jansz, Dutch explorer	1606
Tasmania	Visited	Tasman, Dutch navigator	1642
Australia	Explored	Sturt, English explorer	1828
Australia	Explored	Burke and Wills, Australian explorers	1861
Arctic, Antarctic and Miscellaneous			
Ocean exploration	Expedition	Magellan's ships circled globe	1519-22
Spitsbergen	Visited	Barents, Dutch navigator	1596
Antarctic Circle	Crossed	Cook, English navigator	1773
Antarctica	Discovered	Palmer, U S. explorer (archipelago) and Bellingshausen, Russian navi- gator (mainland)	1820-21
Antarctica	Explored	Wilkes, American explorer	1840
North Pole	Discovered	Peary, American explorer	1909
South Pole	Discovered	Amundsen, Norwegian explorer	1911

The Seven Wonders of the World

THE PYRAMIDS OF EGYPT

A group of three pyramids, *Khufu*, *Khafra*, and *Menkaura* at Giza, outside modern Cairo, is often called the first wonder of the world; it is also the oldest and only surviving "wonder." The largest pyramid, built by Khufu (Cheops), had an original estimated height of 482 ft. (now approximately 450 ft.). The exact date of its construction is unknown and has been estimated as early as 4700 B.C. but is probably closer to 2900 B.C.

HANGING GARDENS OF BABYLON

Often listed as the second wonder, these gardens were supposedly built by Nebuchadnezzar about 600 B.C. to please his queen, Amuhia. They are also associated with the mythical Assyrian Queen, Semiramis. Archaeologists surmise that the gardens were laid out atop a vaulted building, with provisions for raising water. The terraces were said to rise from 75 to 300 ft.

The Walls of Babylon, also built by Nebuchadnezzar, are sometimes referred to as the second (or the seventh) wonder instead of the Hanging Gardens.

STATUE OF ZEUS (JUPITER)

AT OLYMPIA

The work of Phidias (5th century B.C.), this colossal figure in gold and ivory was reputedly 40 ft. high. All trace of it is lost, except for reproductions on coins.

TEMPLE OF ARTEMIS (DIANA)

AT EPHEBUS

A beautiful structure, begun about 350 B.C. in honor of a non-Hellenic goddess who later became identified with the Greek goddess of the same name. The temple, with Ionic columns 60 feet high, was destroyed by invading Goths A.D. 262.

MAUSOLEUM AT HALICARNASSUS

This famous monument was erected by Queen Artemisia in memory of her husband, King Mausolus of Caria in Asia Minor, who died in 353 B.C. Some remains of the structure are in the British Museum. This shrine is the source of the modern word "mausoleum."

COLOSSUS AT RHODES

This bronze statue of Helios (Apollo), about 105 ft. high, was the work of the sculptor Chares, who reputedly labored for 12 years before completing it in 280 B.C. It was destroyed during an earthquake in 224 B.C.

PHAROS OF ALEXANDRIA

The seventh wonder was the Pharos (lighthouse) of Alexandria, built by Sosthenus of Knidos during the 3rd century B.C. on the island of Pharos off the coast of Egypt. It was destroyed by an earthquake in the 13th century.

Representative Mountain Peaks of the World

Mountain peak	Range	Location	Height, ft.
Everest	Himalayas	Tibet-Nepal	29,028
Godwin Austen (K2)	Karakoram	India	28,250
Kanchenjunga	Himalayas	Nepal	28,140
Makalu	Himalayas	Tibet-Nepal	27,790
Dhaulagari	Himalayas	Nepal	26,795
Gurla Mandhata	Himalayas	Tibet	25,355
Tirich Mir	Hindu Kush	Pakistan	25,230
Muztagh Ata (K5)	Pamirs	Sinkiang	24,388
Muztagh	Kunlun	Sinkiang	23,890
Aconcagua	Andes	Argentina	22,835
Dos Conos	Andes	Argentina	22,507
Ojos del Salado	Andes	Argentina-Chile	22,408
Huascarán	Andes	Peru	22,205
Llullaillaco	Andes	Argentina-Chile	22,148
Kailas	Himalayas	Tibet	22,028
Mercedario	Andes	Argentina	21,883
Tupungato	Andes	Argentina-Chile	21,489
Sajama	Andes	Bolivia	21,391
Chimborazo	Andes	Ecuador	20,557
McKinley	Alaska	Alaska	20,320
Logan	St. Elias	Canada (Yukon Territory)	19,850
Killimanjaro	.....	Tanganyika	19,565
Cotopaxi	Andes	Ecuador	19,344
Cayambe	Andes	Ecuador	19,170
Misti	Andes	Peru	19,167
Orizaba (Citlaltepetl)	Sierra Madre Oriental	Mexico	18,696
Elbrus	Caucasus	U.S.S.R.	18,468
St. Elias	St. Elias	Alaska-Canada	18,008
Vilcanota	Andes	Peru	17,998
Popocatepetl	Cordillera de Anáhuac	Mexico	17,883
Cerro de Cuz	Andes	Bolivia	17,828
Ixtaccihuatl	Cordillera de Anáhuac	Mexico	17,338
Tolima	Andes	Colombia	17,109
Dikh-Tau	Caucasus	U.S.S.R.	17,054
Kenya	.....	Kenya	17,040
Ruwenzori	Ruwenzori	Belgian Congo-Uganda	16,795
Kazbek	Caucasus	U.S.S.R.	16,545
Bona	Wrangell	Alaska	16,421
Klyuchevskaya	Kamchatka	U.S.S.R.	15,912
Savalan	Elburz	Iran	15,784
Blanc	Alps	France	15,781
Lister	.....	Antarctica	15,384
Fairweather	St. Elias	Alaska	15,300
Dashan	Siemen	Ethiopia	15,158
Markham	.....	Antarctica	15,102
Matterhorn	Alps	Switzerland-Italy	14,780
Whitney	Sierra Nevada	California	14,495
Elbert	Rockies	Colorado	14,431
Massive	Rockies	Colorado	14,418
Rainier	Cascades	Washington	14,410
Longs	Rockies	Colorado	14,255
Colima	Sierra Madre Occidental	Mexico	14,239
Shasta	Sierra Nevada	California	14,162
Pikes Peak	Rockies	Colorado	14,110
Finsteraarhorn	Alps	Switzerland	14,026
Mauna Kea	.....	Hawaii	13,796
Gannett Peak	Rockies	Wyoming	13,785
Mauna Loa	.....	Hawaii	13,680
Jungfrau	Bernese Alps	Switzerland	13,667
Cameroon	.....	British Cameroons	13,353
Erebus	.....	Antarctica	13,202
Robson	Rockies	British Columbia	12,972
Fujiyama (Fujisan)	.....	Japan	12,385
Cook	Southern Alps	South Island, New Zealand	12,349
Hood	Cascades	Oregon	11,245

Large Islands of the World

Island and status	Location	Area, sq. mi.
GREENLAND (Danish territory)	North Atlantic	839,782
NEW GUINEA (Under Dutch crown, west part; U. N. trust territory under Australian administration, northeast part; Australian territory, southeast part)	Southwest Pacific	312,329
BORNEO (United States of Indonesia, south part; British protectorate and colonies, north part)	South China Sea	290,012
MADAGASCAR (French overseas territory)	Off southeast coast of Africa	227,737
BAFFIN (Canada, Northwest Territories)	Arctic	201,600
SUMATRA (United States of Indonesia)	Northeast Indian Ocean	163,145
HONSHU (Japanese home island)	Sea of Japan—Pacific	91,278
GREAT BRITAIN (Eng., Scotland, Wales)	Off coast of northwest Europe	88,140
VICTORIA (Canada, Northwest Territories)	Arctic	80,450
ELLESMEIRE (Canada, Northwest Territories)	Arctic Ocean	75,024
CELEBES (United States of Indonesia)	Southwest Pacific	69,255
SOUTH ISLAND, NEW ZEALAND	South Pacific	58,093
JAVA (United States of Indonesia)	Northeast Indian Ocean	48,504
NORTH ISLAND, NEW ZEALAND	South Pacific	44,281
NEWFOUNDLAND (Canadian province)	North Atlantic	42,734
CUBA (Republic)	Caribbean Sea	42,350
LUZON	Philippine Islands	40,814
ICELAND (Republic)	North Atlantic	39,688
MINDANAO	Philippine Islands	36,537
HOKKAIDO (Japanese home island)	Sea of Japan—Pacific	34,084
IRELAND (Ireland, republic, south part; Northern Ireland, part of United Kingdom)	West of Great Britain	31,840
HISPANIOLA (Dominican Republic, east part; Haitian republic, west part)	Caribbean Sea	30,075
TASMANIA (Australian state)	South of Australia	26,215
BANKS (Canada, Northwest Territories)	Arctic	25,992
CEYLON (Member of Commonwealth of Nations)	Indian Ocean	25,332
SAKHALIN (U.S.S.R.)	North of Japan	24,560
DEVON (Canada, Northwest Territories)	Arctic	20,484
TIERRA DEL FUEGO (East part to Argentina; west part to Chile)	Southern tip of South America	18,530
MELVILLE (Canada, Northwest Territories)	Arctic	16,164
SOUTHAMPTON (Canada, N. W. Territories)	Hudson Bay	16,114

Oceans and Seas

Name	Area, sq. mi.	Average depth, feet	Greatest known depth, ft.	Place of greatest known depth
Pacific Ocean	63,801,700	14,048	35,400	Off Mindanao
Atlantic Ocean	31,830,800	12,880	30,246	Off Puerto Rico
Indian Ocean	28,356,300	13,002	22,968	Off Sumatra-Java
Arctic Ocean	5,440,200	3,953	17,850	77° 45' N.; 175° W.
Mediterranean Sea*	1,145,100	4,688	15,564	Off Cape Matapan, Greece
Caribbean Sea	1,049,500	8,685	22,788	Off Cayman Islands
South China Sea	895,400	5,419	18,090	West of Luzon
Bering Sea	875,800	4,714	13,422	Off Buldir Island
Gulf of Mexico	618,200	4,874	12,744	Sigsbee Deep
Sea of Okhotsk	589,800	2,749	11,400	146° 10' E.; 46° 50' N.
East China Sea	482,300	617	9,126	25° 16' N.; 125° E.
Hudson Bay	475,800	420	600	Near entrance
Sea of Japan	389,100	4,429	12,276	Central Basin
Andaman Sea	308,000	2,854	12,392	Off Car Nicobar Island
North Sea	222,100	308	2,165	Skagerrak
Red Sea	169,100	1,611	7,254	Off Port Sudan
Baltic Sea	163,000	180	1,380	Off Gotland

* Including Black Sea and Sea of Azov. NOTE: For Caspian Sea, see Large Lakes of World elsewhere in this section.

Famous Waterfalls of the World

Waterfall	Location	River	Height, feet
Angel	Venezuela	Tributary of Caroni	3,300
Cuquenán, or Kukenaam	Venezuela-British Guiana	Cuquenán	2,000
Sutherland	South Island, N. Z.	Arthur	1,904
Tugela	Natal, South Africa	Tugela	1,800
Ribbon (Yosemite)	California	Creek, flowing into Yosemite	1,612
Upper Yosemite	California	Yosemite Creek, tributary of Merced	1,430
Gavarnie	Southwestern France	Gave de Pau	1,385
Takkakaw	British Columbia	Tributary of Yoho	1,200
Widow's Tears (Yosemite)	California	Tributary of Merced	1,170
Staubbach	Switzerland	Staubbach (Lauterbrunnen valley)	980
Trummelbach	Switzerland	Trummelbach (Lauterbrunnen)	950
Middle Cascade (Yosemite)	California	Yosemite Creek, tributary of Merced	910
Multnomah	Oregon	Multnomah Creek, tributary of Columbia	850
Vettisfos	Norway	Morkedöla	850
King Edward VII	British Guiana	Courantyne	840
Gersoppa	India	Sharavati	830
Kaiteur	British Guiana	Pataro	741
Kalambo	Tanganyika-N. Rhodesia	.....	705
Fairy (Mt. Rainier Park)	Washington	Stevens Creek	700
Maradalsfos	Norway	Stream flowing into Ejkisdalsvand (lake)	650
Skykkjefos	Norway	In Skykkjedal (valley) of Inner Hardanger Fiord	650
Terni	Italy	Vellino, tributary of Nera	650
Maletsunyane (Le Bihan)	Basutoland, Africa	Maletsunyane	630
Bridal Vell (Yosemite)	California	Bridal Vell Creek, tributary of Merced	620
Nevada (Yosemite)	California	Merced	594
Voringfos	Norway	Bjorela	535
Skjaeggedalsfos	Norway	Tyssaa	525
Marina	British Guiana	Tributary of Kuribrong, a tributary of the Pataro	500
Tequendama	Colombia	Bogotá	450
King George's	Cape Province, South Africa	Orange	450
Herval Cascades	Brazil	.....	400
Guayra	Paraguay-Brazil	Paraná	374
Illilouette (Yosemite)	California	Illilouette Creek, tributary of Merced	370
Granite (Mt. Rainier Park)	Washington	Granite Creek	350
Splendor of Sun	Nikko, Japan	.....	350
Victoria	Southern Rhodesia	Zambezi	343
Comet (Mt. Rainier Park)	Washington	Van Trump Creek	320
Lower Yosemite	California	Yosemite Creek	320
Vernal (Yosemite)	California	Merced	317
Virginia	Northwest Territories, Canada	South Nahanni, tributary of Mackenzie	315
Lower Yellowstone	Wyoming	Yellowstone	308
Grand	Labrador, Canada	Hamilton	302
Sluiskin (Mt. Rainier Park)	Washington	Paradise	300
Snoqualmie	Washington	Snoqualmie	270
Seven Falls	Colorado	.....	266
Tallulah	Georgia	Tallulah	251
Shoshone	Idaho	Snake	195
Narada (Mt. Rainier Park)	Washington	Paradise	168
Niagara	New York-Ontario	Niagara	167
Tower (Yellowstone)	Wyoming	Tower Creek, tributary of Yellowstone	132

Principal Rivers of the World

River	Source	Outflow	Approx. length, miles
Nile	Lake Victoria	Mediterranean Sea	4,160
Amazon	Glacier-fed lakes, Peru	Atlantic Ocean	3,900
Mississippi-Missouri-Red Rock	Source of Red Rock River, Montana	Gulf of Mexico (mouth of South west Pass)	3,890
Ob	Altai Mts., U.S.S.R.	Gulf of Ob	3,200
Yangtze Kiang	Tibetan plateau	China Sea	3,100
Amur	Confluence of Shilka (U.S.S.R.) and Argun (Manchuria) Rivers	Tartary Strait	2,900
Congo	Between Lakes Nyasa and Tanganyika	Atlantic Ocean	2,900
Lena	Baikal Mts., U.S.S.R.	Arctic Ocean	2,800
Yenisei	Tannu Ola Mountains, western Mongolia	Arctic Ocean	2,800
Missouri-Red Rock	Source of Red Rock River, Montana	Mississippi River	2,714
Hwang Ho (Yellow)	East part of Kunlun Mts., west China	Gulf of Chihli	2,700
Niger	Border of Sierra Leone	Gulf of Guinea	2,600
Mackenzie	Head of Finlay River, British Columbia	Beaufort Sea (Arctic Ocean)	2,514
Mékong	Tibetan highlands	South China Sea	2,500
Missouri	Confluence of Jefferson and Madison rivers, Montana	Mississippi River	2,466
Paraná	Confluence of Paranaíba and Grande Rivers, southeast Brazil	Río de la Plata (Atlantic Ocean)	2,450
Mississippi	Lake Itasca, Minnesota	Gulf of Mexico (mouth of South-west Pass)	2,348
Murray	Australian Alps, New South Wales	Indian (Southern) Ocean	2,310
Irtish	Altai Mts., U.S.S.R.	Ob River	2,300
Volga	Valdai plateau, U.S.S.R.	Caspian Sea	2,300
Madeira	Confluence of Gauporé and Maumoré Rivers, Bolivia-Brazil border	Amazon River	2,000
St. Lawrence	St. Louis River, Minn.	Gulf of St. Lawrence	1,900
Purús	Southwest Amazonas, Brazil	Amazon River	1,850
Río Grande	San Juan Mts., Colorado	Gulf of Mexico	1,800
São Francisco	Southwest Minas Geraes, Brazil	Atlantic Ocean	1,800
Yukon	Junction of Lewes and Pelly, Yukon Territory	Bering Sea	1,800
Salween	Tibet, south of Kunlun Mountains	Gulf of Martaban	1,750
Danube	Black Forest, Germany	Black Sea	1,725
Euphrates	Dumlu Dagh (mountains), Turkey	Persian Gulf	1,700
Indus	Himalayas	Arabian Sea	1,700
Orinoco	Sierra Parima on Venezuela-Brazil boundary	Atlantic Ocean	1,700
Tocantins	Near Pyrenopolis, southeast Brazil	Pará River (Atlantic Ocean)	1,700
Brahmaputra	Himalayas	Ganges River (Bay of Bengal)	1,680
Si Kiang	Plateau of Yunnan, southwest China	China Sea	1,650
Nelson	Head of Bow River, west Alberta, Canada	Hudson Bay	1,600
Zambezi	11°21'S.; 24°22'E., Northern Rhodesia, Africa	Indian Ocean	1,600
Ganges	Himalayas	Bay of Bengal	1,540

River	Source	Outflow	Approx. length, miles
Amu Darya (Oxus)	Nicholas Range, Pamir Mountains, U.S.S.R.	Lake Aral	1,500
Paraguay	Mato Grosso, Brazil	Paraná River	1,500
Yapurá	Andes, Colombia	Amazon River	1,500
Arkansas	Central Colorado	Mississippi River	1,450
Colorado	Grand County, Colorado	Gulf of California	1,450
Dnieper	Valdai Hills, U.S.S.R.	Black Sea	1,400
Negro	Watershed between Ori- noco and Amazon	Amazon River	1,400
Ural	Southern Ural Moun- tains, U.S.S.R.	Caspian Sea	1,400
Ohio-Allegheny	Potter County, Pa.	Mississippi River	1,306
Orange	Basutoland, Africa	Atlantic Ocean	1,300
Irrawaddy	Confluence of N'mai and Mali Rivers, northeast Burma	Bay of Bengal	1,250
Columbia	Columbia Lake, British Columbia	Pacific Ocean	1,214
Saskatchewan	Western Alberta, Canada	Lake Winnipeg	1,205
Darling	Central part of Eastern Highlands, Australia	Murray River	1,160
Tigris	Taurus Mts., Turkey	Euphrates River (Persian Gulf)	1,150
Sungari	Sungari Reservoir, Manchuria, China	Amur River	1,130
Don	Lake Ivan, U.S.S.R.	Sea of Azov	1,100

Large Lakes of the World

Name and location	Area, sq. mi.	Length, miles	Maximum depth, feet	Elevation above sea level, feet
Caspian, U.S.S.R.-Iran†	169,300	795	3,612	-86
Superior, U. S. A.-Canada	31,820	383	1,302	622
Victoria, East Central Africa	26,828	250	270	3,717
Aral, U.S.S.R.	26,233	280	222	155
Huron, U. S. A.-Canada	23,010	206	750	581
Michigan, U. S. A.	22,400	321	923	581
Baikal, U.S.S.R.	13,300	385	5,413	1,515
Tanganyika, East Central Africa	12,700	420	4,708	2,534
Great Bear, Canada	12,000	195	270*	391
Great Slave, Canada	11,170	325	—	495
Nyasa, Southern Africa	11,000	350	2,580	1,650
Erie, U. S. A.-Canada	9,940	241	210	572
Winnipeg, Canada	9,398	260	70	712
Ontario, U. S. A.-Canada	7,540	193	778	246
Balkhash, U.S.S.R.	7,115	430	36	900
Ladoga, U.S.S.R.	7,000	125	730	55
Onega, U.S.S.R.	3,764	145	408	125
Rudolf, Eastern Africa	3,475	185	—	1,250
Titicaca, Bolivia-Peru	3,200	125	892	12,507
Nicaragua, Nicaragua	3,089	110	200	135
Athabaska, Canada	3,058	195	—	699
Reindeer, Canada	2,444	155	—	1,150
Issyk-Kul, U.S.S.R.	2,230	115	2,300	5,400
Koko Nor, China	2,200	66	—	10,000
Vänern, Sweden	2,143	87	292	144
Winnipegosis, Canada	2,086	122	38	831
Bangweulu, East Central Africa	1,900	60	15	3,700
Nipigon, Canada	1,870	70	—	852
Manitoba, Canada	1,817	120	12*	813
Urmia, Iran	1,750*	80-90	50	4,184
Albert, Uganda, Africa	1,640	100	50	2,037
Dubawnt, Canada	1,600	65	—	500
Great Salt, U. S. A.	1,500	75	15-25*	4,218
Van, Turkey	1,453	80	—	5,643

* Average. † The name Caspian Sea is a misnomer; it is a land-locked lake, so classified by oceanographers.

Volcanoes of the Earth

There are approximately 430 volcanoes (275 in the Northern Hemisphere and 155 in the Southern) with recorded eruptions in historical times. Of the 2,500 recorded eruptions, more than 2,000 have taken place in the Pacific area. Of known active volcanoes, about 80 are of the submarine type.

ATLANTIC-INDIAN AREA

Mediterranean Region

Italy: Mt. Vesuvius, southeast of Naples (3,858 ft.). Only active volcano on mainland of Europe. Pompeii buried by an eruption, A.D. 79. Latest eruption in 1944.

Sicily: Mt. Etna, eastern Sicily (10,741 ft.). Two new craters formed in eruptions of Feb.-Mar., 1947. Worst eruption in 50 years occurred Nov., 1950-Jan., 1951.

Lipari Islands (north of Sicily): Stromboli (about 3,000 ft.). Called "Lighthouse of the Mediterranean." Erupted 1956.

Atlantic Area

Canary Islands: Pico de Teide (Teneriffe), on island of Teneriffe (12,192 ft.).

Cape Verde Islands: Fogo (over 8,000 ft.). Severe eruption in 1857; last until 1951.

Iceland: At least 25 volcanoes active in historic times. These volcanoes very similar to those in Hawaii. Askja (4,600 ft.) is the largest.

Lesser Antilles (West Indian Islands): Mt. Pelée, in northwestern Martinique (about 4,400 ft.). Eruption in 1902 destroyed town of St. Pierre and killed approximately 40,000.

Indian Ocean Region

Comoro Islands (east of northern Mozambique): One volcano, Kartala (over 8,500 ft.), is visible for over 100 miles. Last erupted in 1904.

Réunion Island (east of Madagascar): Piton de la Fournaise (Le Volcan) (8,610 ft.). Large lava flows.

THE PACIFIC AREA

Northwest Portion

Kamchatka: 14-18 active volcanoes. Klyuchevskaya (Kluchev) (15,912 ft.) erupted in 1954.

Kurile Islands: At least 13 active volcanoes and several submarine outbreaks.

Japan: at least 33 active vents.

Fujiyama (Fujisan), southwest of Tokyo (12,385 ft.). Symmetrical in outline, snow-covered. Regarded as a sacred mountain.

Adzumayama (7,733 ft.).

Asamayama (8,182 ft.). Continuously active; violent eruption in 1783; latest in 1955.

Bonin (Ogasawara) Islands: Mt. Suribachi, on Iwo Jima (546 ft.). A sulfurous steaming volcano. Raising of U. S. flag over Mt. Suribachi was one of the dramatic episodes of World War II.

Samoa archipelago: Savali. An eruption in 1905 did considerable damage. Niuafuou (Tin Can) between Samoa and Fiji Islands has a crater 6,000 feet below and 600 feet above water.

Philippine Islands: about 100 eruptive centers; Hibok Hibok on Camiguin island erupted in Sept. 1950, and again in Dec. 1951, when about 750 were reported killed or missing; eruptions continued during 1952-53.

Hawaiian Group: Mauna Loa (13,680 ft.). Also called "Long Mountain." Discharges more lava than any other volcano. Largest volcanic mountain in the world in cubic content, with crater of 3.7 sq. mi. Violent eruption in June, 1950, with lava pouring 25 mi. into the ocean.

Mauna Kea (13,796 ft.). Highest mountain in group.

Kilauea (4,090 ft.). A vent in side of Mauna Loa but apparently erupts independently of it. One of the most spectacular and active craters. Crater has an area of 4.14 sq. mi. Erupted 1952 and again in 1955, with considerable damage.

Southwest Portion

Sumatra: Ninety volcanoes have been discovered; 12 are now active. The most famous, Krakatoa, is a small volcanic island in the Sunda Strait. Numerous volcanic discharges occurred in 1883. One explosion caused the disappearance of the highest peak and the northern part of the island. Fine dust was carried around the world in the upper atmosphere. Over 36,000 persons lost their lives in resultant tidal waves, which were felt as far away as Cape Horn. Active in 1928, 1950 and 1953.

New Zealand: Tarawera, on North Island. Severe eruption in 1886 destroyed the famous pink and white sinter terraces of Rotomahana, a hot lake.

Ngauruhoe (7,515 ft.). Emits steam and vapor incessantly. Major eruptions occurred 1952-54.

Northeast Portion

Aleutian area: There are 32 active vents known, and numerous inactive cones.

Alaska: Wrangell (14,005 ft.) and Katmai (about 7,500 ft.).

On June 6, 1912, a violent eruption of

the volcano Nova Rupta occurred, during which the "Valley of Ten Thousand Smokes" was formed.

California, Oregon, Washington: Lassen Peak (10,453 ft.) in California is the only observed active volcano in the U. S. outside Alaska and Hawaii. The last period of activity was 1914-17. Other mountains of volcanic origin include Mt. Shasta (Calif.), Mt. Hood and the mountain containing Crater Lake (Oreg.), and Mt. Rainier (Wash.).

Mexico: Popocatepetl (17,883 ft.). Crater 673 ft. deep and $2\frac{1}{2}$ mi. in circumference. Not entirely extinct; steam still escapes.

Colima (14,239 ft.), in group that has had frequent eruptions.

Orizaba (Citlaltepetl) (18,696 ft.).

Parícutín. First appeared in Feb., 1943. In less than a week a cone over 140 ft. high developed with a crater one quarter mile in circumference. Cone grew over 1,500 ft. in 1943. Erupted 1952.

Boquerón ("Big Mouth"). Newest volcano in Western Hemisphere, discovered Sept., 1952 on San Benedicto island, about 250 mi. south of Lower California.

Guatemala: Santa Maria Quezaltenango (12,361 ft.). Frequent activity between 1902-08 and 1922-28 after centuries of quiescence. Most dangerously active vent

of Central America. Other volcanoes include Tajumulco (13,814 ft.) and Atitlán (11,633 ft.).

El Salvador: Izalco, "beacon of Central America," which first appeared in 1770 and is still growing (erupted in 1950, 1956); San Salvador, which had a violent eruption in 1923, and Conchagua, which erupted with considerable damage early in 1947.

Nicaragua: Volcanoes include Telica, Coseguina and Momotombo. Between Momotombo on the west shore of Lake Managua and Coseguina overlooking the Gulf of Fonseca, there is a string of more than 20 cones, many still active. One of these, Cerro Negro, erupted in July, 1947, with considerable damage and loss of life, and again in 1948-50.

Southeast Portion

Colombia: Huila (18,700 ft.), a vapor-emitting volcano, and Tolima (17,109 ft.).

Eruption of Puracé (15,420 ft.), 1949, killed 17.

Ecuador: Cotopaxi (19,344 ft.). Perhaps highest active volcano in the world. Possesses a beautifully formed cone.

Cayambe (19,170 ft.). Almost on equator.

Chile and Argentina: About 25 active or potentially active; destructive eruptions of Villarrica, Chile, 1948, and of Nilahue and Ríñihue, 1955.

Principal Deserts of the World

Desert	Location	Approximate size	Appx. elevation, ft.
Atacama.....	North Chile.....	400 mi. long.....	7,000-13,500
Black Rock.....	Northwest Nevada.....	About 1,000 sq. mi.....	2,000-5,000
Colorado.....	Southeast California from San Geronio Pass to Gulf of California	200 mi. long and a maximum width of 50 mi.....	Few feet above to 250 below sea level
Dasht-i-Kavir.....	Southeast of Caspian Sea in Iran.....		2,000
Dasht-i-Lut.....	Northeast of Kerman in Iran.....		1,000
Gobi (Shamo).....	Covers most of Mongolia.....	300,000 sq. mi.....	3,000-5,000
Great Arabian.....	Most of Arabia.....	1,500 mi. long.....	
Syrian (El Hamad).....	North of 30° N. Latitude.....		1,850
Nefud (Red Desert).....	South of Jauf.....	400 mi. by average of 200 mi.	3,000
Dahna.....	Southeast of Nefud.....	400 by 30 mi.....	
Rub' al Khali.....	South portion of Nejd.....		
Great Australian.....	Western portion of Australia.....	About one-half the continent.....	600-1,000
Great Salt Lake.....	West of Great Salt Lake to Nevada-Utah line.....	80 by 50 mi.....	4,500
Kalahari.....	South Africa between the Orange and Zambezi Rivers	400 by 600 mi., or about 120,000 sq. mi.....	Over 3,000
Kara Kum (Desert of Khiva).....	Southwest Turkestan south of Lake Aral	110,000 sq. mi.....	
Kizil Kum.....	Central Turkestan southeast of Lake Aral	370 by 220 mi., or about 70,000 sq. mi.....	160 near Lake Aral to 2,000 in southeast
Libyan.....	Eastern Sahara west of Nile	More than 500,000 sq. mi.....	
Mohave.....	North of Colorado Desert and south of Death Valley in SE Calif.	15,000 sq. mi.....	2,000
Nubian.....	From Red Sea to great west bend of the Nile		2,500
Painted Desert.....	Northeast Arizona.....	75 mi. wide.....	High plateau 5,000
Sahara.....	Northern states of Africa to about 15° N. Lat. and from Red Sea to the Atlantic Ocean	3,200 mi. greatest length along 20° N. Lat.; Area over 3,500,000 sq. mi.....	440 below sea level to 11,000 above, ave. elevation, 1,400-1,600
Takla Makan.....	S. Central Sinkiang in Tarim Basin	700 mi. long.....	
Thar (Indian).....	Chiefly Rajputana, India.....	About 300 mi. by 380 mi.....	About 500

Interesting Caves and Caverns of the World

Aggtelek. In village of same name, northern Hungary. Large stalactitic cavern about 5 miles long.

Altamira Cave. Near Santander, Spain. Contains animal paintings (Old Stone Age art) on roof and walls.

Antiparos. On island of same name in the Grecian Archipelago. Some stalactites are 20 ft. long. Brilliant colors and fantastic shapes.

Blue Grotto. On island of Capri, Italy. Cavern hollowed out in limestone by constant wave action. Now half filled with water because of sinking coast. Name derived from unusual blue light permeating the cave. Source of light is a submerged opening, light passing through the water.

Carlsbad Caverns. Southeast New Mexico. Largest underground labyrinth yet discovered. Three levels: 754, 900, and 1,320 feet below the surface.

Fingal's Cave. On island of Staffa off coast of western Scotland. Penetrates about 200 ft. inland. Contains basaltic columns almost 40 ft. high.

Ice Cave. Near Dobsina, Czechoslovakia. Noted for its beautiful crystal effects.

Jenolan Caves. In Blue Mountain plateau, New South Wales, Australia. Beautiful stalactitic formations.

Kent's Cavern. Near Torquay, England. Source of much information on Paleolithic man.

Luray Cavern. Near Luray, Virginia. Has large stalactitic and stalagmitic columns of many colors.

Mammoth Cave. Limestone cavern in central Kentucky. Cave area is about 10 miles in diameter but has at least 150 miles of irregular subterranean passages at various levels. Temperature remains fairly constant at 54°F.

Peak Cavern or Devil's Hole. Derbyshire, England. About 2,250 ft. into a mountain. Lowest part is about 600 ft. below the surface.

Postumia (Adelsberg) Grotto. Near Postumia in Julian Alps, about 25 miles N.E. of Trieste. Stalactitic cavern, largest in Europe. Piuca (Pivka) River flows through part of it. Caves have numerous beautiful stalactites.

Singing Cave. Iceland. A lava cave; name derived from echoes of people singing in it.

Wind Cave. In Black Hills of South Dakota. Limestone caverns with stalactites and stalagmites almost entirely missing. Variety of crystal formations called "boxwork."

Wyandotte Cave. In Crawford County, southern Indiana. A limestone cavern with five levels of passages; one of the largest in North America. "Monumental Mountain," approximately 135 ft. high, is believed to be one of the world's largest underground "mountains."

Geysers

Geysers exist in many volcanic regions of the world such as Japan and South America, but their greatest development is in Iceland, New Zealand and Yellowstone National Park.

Iceland. The principal geyser area is about 30 miles northwest of Mt. Hekla, where there are more than 100 geysers and hot springs in about two square miles. The main ones are the following:

Great Geyser (Geysir). Sends up a column 160 to 180 ft. high intermittently from an opening more than 9 ft. across and about 70 ft. deep.

Strokkur (Churn). Constant bubbling and occasional eruptions.

New Zealand. There is a great profusion of boiling springs, steam jets and mud volcanoes northeast of Lake Taupo on North Island. Main geysers are *Waikite*, with a 30-35 ft. column, *Pohutu* and *Waimauku*.

United States. There are 120 named geysers in Yellowstone National Park, Wyoming, and perhaps half that number un-

named. Most of the geysers and the 4,000 or more hot springs are located in the western portion of the park. The most important are the following:

Norris Geyser Basin has 24 or more active geysers; the number varies. There are scores of steam vents and hot springs. *Valentine* is highest, erupting 50-75 ft. at intervals varying from 18 hr. to 3 days or more. *Minuté*, 15-20 ft. high, several hours apart. Others include *Steamboat*, *Fearless*, *Veteran*, *Vixen*, *Corporal*, *Whirligig*, *Little Whirligig* and *Pinwheel*.

Lower Geyser Basin has at least 18 active geysers. *Fountain* throws water 50-75 ft. in all directions at unpredictable intervals. *Clepsydra* erupts violently from four vents up to 30 ft. *Great Fountain* plays every 8 to 15 hr. in spurts from 30 to 90 ft. high.

Midway Geyser Basin has vast steaming terraces of red, orange, pink and other colors; there are pools and springs, including the beautiful *Grand Prismatic Spring*. *Excelsior* crater discharges boiling water into Firehole River at the rate of 6 cu. ft. per second.

Giant erupts up to 200 ft. at intervals of 2½ days to 3 mo.; eruptions last about 1½ hr. *Daisy* sends water up to 75 ft. but is irregular and frequently inactive.

Old Faithful sends up a column varying from 116 to 175 ft. at intervals of about 65 min., varying from 33 to 90 min. Eruptions last about 4 min., during which time about 12,000 gal. are discharged.

Giantess seldom erupts, but during its active periods sends up streams 150-200 ft.

Lion Group: *Lion* plays up to 60 ft.

every 2-4 days when active; *Little Cub* up to 10 ft. every 1-2 hr. *Big Cub* and *Lioness* seldom erupt.

Castle usually erupts twice daily to a height of 75 ft.

Mammoth Hot Springs: There are no geysers in this area. The formation is travertine. Sides of a hill are steps and terraces over which flow the steaming waters of hot springs laden with minerals. Each step is tinted by algae to many shades of orange, pink, yellow, brown, green and blue. Terraces are white where no water flows.

Famous Ship Canals of the World

Name	Location	Year opened	Length (mi.)†	Width (ft.)	Depth (ft.)	Locks
Albert	Belgium	1939	80.0	53.0	16.5	6
Amsterdam-Rhine	Netherlands	1952	45.0	164.0	41.0	3
Beaumont-Port Arthur	United States	1916	40.0	200.0	34.0	..
Chesapeake and Delaware	United States	1927	19.0	250.0	27.0	..
Houston	United States	1914	43.0	300.0	34.0	..
Kiel	Germany	1895	61.3	144.0	36.0	4
Panama	Canal Zone	1914	50.0	110.0	41.0	12
St. Lawrence Seaway	U. S. & Canada	1959	2,400.0†	§	27.0	7
Sault Ste. Marie	Canada	1895	1.2	60.0	16.8	1
Sault Ste. Marie	United States	1915	1.6	80.0	25.0	4
Suez	Egypt	1869	100.6*	197.0	34.0	..
Welland	Canada	1931	27.6	80.0	25.0	8

* From Port Said lighthouse to entrance channel in Suez roads. † In statute miles. ‡ Montreal to Duluth. § 442 ft.-550 ft.; there are 11 1/2 miles of locks, 80 ft. wide and 30 ft. deep.

World Extremes of Climate

Highest recorded shade temperature:

World: 136° F. at Azizla, Libya, North Africa, September 13, 1922.

United States: 134° F. at Death Valley, California, July 10, 1913.

Lowest recorded temperature:

World (tentative): -125.3° F. at Vostok, near south geomagnetic pole, Antarctica, August 25, 1958.

In Siberia, -89.9° F. at Oimekon, February 6, 1933, and -89.7° F. at Verkhoyansk, February 5 and 7, 1892.

United States: -70° F. at Rogers Pass, Montana, January 20, 1954.

Highest mean annual temperature:

World: 88° F. at Lugh, Somaliland, Africa, 13-year average.

Lowest mean annual temperature:

World: -71.0° F. at Sovietskaya (78° 24' S. lat., 87° 35' E. long.) (March 1958-Feb. 1959).

United States: 27.0° F. at Mount Washington, N. H., 30-year record.

United States: 77.6° F. at Key West, Florida, 30 year normal.

Maximum rainfall for 24-hour period:

World: 46 inches at Baguio, Luzon, Philippines, July 14-15, 1911.

United States: 38.7 inches at Yankeetown, Florida, September 5-6, 1950.

From a recording gauge: 26.12 inches at Hogeess Camp, California, January 22-23, 1942.

Maximum rainfall in one month:

World: 366.14 inches at Cherrapunji, India, July, 1861 (over 150 inches fell in 5 consecutive days in August, 1841).

United States: 71.54 inches at Helen Mine, California, January, 1909.

Maximum average annual precipitation (calendar year):

World: 471.68 inches at Mt. Waialeale, Island of Kauai, Hawaiian Islands, 1912-1949; 450 inches at Cherrapunji, India, 74 year average.

United States: 150.73 inches at Wynoochee, Washington, 13 year average.

Minimum average annual precipitation (calendar year):

World: 0.02 inch at Arica, Chile, 43 year average.

United States: 1.66 inches at Greenland Ranch, California, 44 year average. (Bagdad, California holds the U. S. record for the longest period with no measurable rain, 767 days, Oct. 3, 1912 to Nov. 8, 1914.)

Other U. S. precipitation extremes:

Wettest state: Louisiana, 65 year annual average of 57.34 inches.

Driest state: Nevada, 66 year annual average of 8.60 inches. (Average annual precipitation for the United States is about 29 inches.)

Heavy U. S. snowfall records:

Greatest average annual: 575.1 inches at Paradise Ranger Station, Rainier Park, Washington.

Greatest amount in one season: 1000.3 inches at Paradise Ranger Station, Rainier Park, Washington, 1955/56.

Greatest amount in a calendar month: 390 inches at Tamarack, California, Jan., 1911.

Greatest in 24 hours: 76 inches at Silver Lake, Colorado, April 14-15, 1921. (This storm, April 12-15, produced highest known rates in U. S. for durations up to 3 days—95 inches in 48 hours; 98 inches in 72 hours; 100 inches in 85 hours.)

In the New York City blizzard of December 26, 1947, 25.8 inches of snow fell in about 20 hours, almost 5 inches more than fell in the blizzard of March, 1888.

Largest hailstone definitely recorded in U. S.: 1½ pounds by weight, at Potter, Nebraska, July 6, 1928.

Ancient Empires

The *Egyptian* and *Babylonian* empires, Near Eastern civilizations whose cultures mark the beginning of written history, had their origins in the nebulous period of ancient history prior to the year 4000 B.C. They developed rapidly in the fertile river valleys of the Nile in Egypt and the Tigris-Euphrates in Mesopotamia after the discovery of metals and the invention of writing. Their governments were all-powerful, with the people subjugated and without political rights. The Egyptians regarded their king as a god. In Babylon, the ruler was a priest-king, earthly representative of the gods. Nevertheless, these Near East cultures made great contributions to the eternal march of man; they advanced the ways of making and doing things, produced the earliest literature, developed the principles of law (the code of Hammurabi, Babylonian king of the 18th [or possibly 17th] century B.C., the oldest code of law) and science.

The influence of Babylon and Egypt was felt in the rise of the Semitic tribes of Syria, the Hittites in Asia Minor, and the people of the Aegean region. Between the years 1200 and 800 B.C., the small Syrian states grew to great power and then were overwhelmed by the great empire of the *Assyrians*, the warlike peasants of the Tigris valley, who took the lessons learned from the Babylonians and spread that culture over their domains. The Assyrians, like the Egyptians and the Babylonians, in turn fell under the power of the *Persian* kings in the century between 600 and 500 B.C. By 525 B.C., the Persian Empire extended from India to Egypt.

The lessons learned by these early Near Eastern civilizations were transmitted to *Greece*, which developed its illustrious empire in the Aegean region, after the inhabitants of the island of Crete had absorbed the Egyptian culture. The mainland Greeks overthrew the Cretans and in turn were succeeded by the Doric Greeks, who spread their culture across the Aegean, the Asia Minor coast, and into the Mediterranean and Black Sea regions. The char-

acteristic Greek political institution was the city-state, first ruled by kings and often temporary monarchical tyrannies, and finally by the participation of free citizens. Literature and the arts flourished, and by the 5th century B.C., when Athens became the great city of the Greeks, drama had risen to full maturity with the great tragedies of Sophocles and Euripides and the comedies of Aristophanes. Architecture and art advanced apace. The Greeks, learning much from their Egyptian teachers, produced such superb buildings as the Parthenon and created amazingly beautiful statues through the use of living models. Religion, which was closely linked with art, also flourished, as did the development of philosophy, under Socrates, Plato and Aristotle. Wars weakened the city-states, and they fell to Alexander the Great in the 4th century B.C.

Last among the great ancient empires was the *Roman*, which developed in Italy and gained control over the Mediterranean region after absorbing the culture of Greece and combining with it new principles of law and art and teaching this new learning to the West. The development of the Roman civilization began in 510 or 509 B.C., when the peoples on the peninsula of Italy freed themselves from the rule of the Etruscans. The Romans, with a republican form of government, speedily conquered Italy and the Mediterranean region, and the Roman governors became men of great wealth, corrupting the city-state system and making it a graft-ridden machine of exploitation. The failure of the government to check this self-seeking influence brought on a revolt which resulted eventually in the rise of Julius Caesar to dictatorship in 46-44 B.C. Caesar's murder in the Senate at Rome was followed in 27 B.C. by the establishment of the one-man rule of Augustus over the Roman Empire. Legal practices were developed and became the foundations of modern law. This great ancient civilization began to crumble in the 3d century A.D.

Languages of the World

(spoken natively by 5,000,000 or more people)

Language	Number speaking	Language	Number speaking
American Indian: including Mayan, Quéchuá and 750-1,000 other languages and dialects	15,000,000	Bisayan, Ilocano, Javanese, Madurese, Malay, Malagasy, Sundanese, Tagalog	105,000,000
Amharic (Ethiopia)	5,600,000	Iranian: including Baluchi, Kurdish, Persian, Pushtu	26,500,000
Annamese (Indo-China)	20,000,000	Italian	50,000,000
Arabic	65,000,000	Japanese	90,000,000
Bantu: including Swahili, Zulu (S. Africa)	45,000,000	Javanese	41,000,000
Bengali (India; Pakistan)	70,000,000	Kanarese (India)	14,000,000
Berber dialects (N. Africa)	6,000,000	Korean	30,000,000
Bihari (India)	37,000,000	Lahnda (India; Pakistan)	13,000,000
Bisayan (Philippines)	9,000,000	Madurese (Indonesia)	6,500,000
Bulgarian	7,000,000	Malay (Indonesia)	14,000,000
Burmese	13,000,000	Malayalam (India)	14,000,000
Catalan (Spain)	6,000,000	Marathi (India)	27,000,000
Chinese: including Mandarin, Cantonese and others	475,000,000	Munda (India)	5,000,000
Cushitic: including Somali (Ethiopia)	7,000,000	Oriya (India)	13,000,000
Czech	8,500,000	Persian	12,000,000
Dravidian: including Kanarese, Malayalam, Tamil, Telugu (India)	95,000,000	Polish	30,000,000
Dutch	15,000,000	Portuguese	63,000,000
English	265,000,000	Punjabi (India; Pakistan)	22,000,000
Ethiopian: including Amharic	6,400,000	Pushtu (Afghanistan; Pakistan)	8,000,000
Finno-Ugric: including Estonian, Finnish, Hungarian, Karelian, Lappish	21,500,000	Rajasthani (India; Pakistan)	17,000,000
Flemish (Belgium)	5,000,000	Rumanian	16,000,000
French	65,000,000	Russian	200,000,000
German	90,000,000	Serbo-Croatian (Yugoslavia)	15,000,000
Greek	8,000,000	Siamese	16,000,000
Gujarati (India; Pakistan)	16,000,000	Sinhalese (Ceylon)	5,500,000
Hausa (Central Africa)	9,000,000	Spanish	150,000,000
Hindi (India; Pakistan)	150,000,000	Sudanic: including Hausa (Central Africa)	75,000,000
Hungarian	13,000,000	Sundanese (Indonesia)	13,000,000
Indic: including Assamese, Bengali, Bihari, Gujarati, Hindi, Lahnda, Marathi, Oriya, Punjabi, Rajasthani, Sindhi, Sinhalese	415,000,000	Swahili (E. Africa)	8,000,000
Indonesian: including Balinese,		Swedish	7,000,000
		Tagalog (Philippines)	5,000,000
		Tamil (India)	27,000,000
		Telugu (India)	33,000,000
		Tibeto-Burman: including Tibetan and Burmese	20,000,000
		Turkic: including Kazakh, Tatar, Turkish, Uzbek	45,000,000
		Turkish	20,000,000
		Uzbek (U.S.S.R.)	6,000,000
		Yiddish	5,000,000

Universities—Medieval and Modern

Universities, in the modern sense of the term, sprang up in the 12th and 13th centuries in response to the resurgence of learning that preceded the Renaissance in Europe. Procedure at the early universities was informal, with students gathering at some place in a city to listen to a pre-eminent teacher. There were no campuses, buildings or endowments. Actually, the term "university" once meant a guild or corporation; there were, in the medieval period, "universities" of bootmakers, weavers, etc. Thus the university of learning was similar in organization to the guilds. The students filled the role of apprentices and the teachers were the masters.

The first European university was that of *Salerno* in the 9th century, when it was known as a school of medicine. By the 11th century, it had become one of the most famous medical schools of Europe.

University of Bologna. Originated about 1200 as student guilds for protection against the merchants and citizens of Bologna who had raised prices of food and lodging. It was famous for its legal scholars. The students were organized into two guilds and exercised a great deal of authority over the administration.

Other Italian universities famed in the Middle Ages included those at *Arezzo*, *Fer-*

rara, Florence, Modena, Naples, Padua, Parma, Perugia, Siena and Vicenza.

University of Paris. Originated between 1150 and 1170 in a cathedral school on the Ile de la Cité, it was later moved to the left (south) bank of the Seine, although it remained under the authority of the chancellor of Notre Dame. It developed into the most famous continental center of learning of its day. Its four principal schools were theology, medicine, law and arts. By the 14th century, the university had some 40 colleges, of which the *Sorbonne* became the most celebrated.

The universities of Paris and Bologna had a marked influence in the subsequent creation of other university centers. About 1167-68 there was a migration of students from Paris to *Oxford* (founded in the 12th century) and about 1210, from Oxford to *Cambridge* (also founded in the 12th century).

Other famous universities of the Middle Ages include the *University of Toulouse* (1233), *Salamanca* (1243), *Seville* (1254), *Orléans* (1305), *Valladolid* (1346), *Prague* (1347), *Kraków* (1364), *Vienna* (1364), *Erfurt* (1379), *Heidelberg* (1385), *Cologne* (1388), *Leipzig* (1409), *Rostock* (1419) and *Louvain* (1426).

The Renaissance

The Renaissance gave fresh impetus to the universities of Europe. In France three of importance arose in the 15th century—the *University of Aix* (1409, Provence), the *University of Poitiers* (1431) and the *University of Caen* (1437).

Other French institutions of note that arose in this era were at *Bordeaux* (1441), *Valence* (1452), *Nantes* (1463) and *Bourges* (1465). New European universities were also founded at *Trier* (1450), *Freiburg* (1455), *Ingolstadt* (1459), *Basel* (1460), *Budapest* (1475), *Mainz* (1476), *Uppsala* (1477), *Tübingen* (1477), *Copenhagen* (1479), *Wittenberg* (1502), *Frankfurt on Oder* (1506) and *Coimbra* (1537).

St. Andrews, founded in 1411, was the first university in Scotland. Others were the *University of Glasgow* (1453) and the *University of Aberdeen* (1494). The *College of Edinburgh* was established in the post-Reformation period (1582). In Ireland, *Trinity College* was founded in Dublin in 1591.

Reformation and Post-Reformation

Until the Reformation, most of the institutions of higher learning in Europe were under the tutelage of the Catholic Church. After 1520, however, many established universities declared their independence of the Church. Cromwell's rule brought about new scholastic methods at both Oxford and Cambridge and the es-

tablishment of new colleges thoroughly imbued with Protestantism.

But the first Protestant university was that of *Marburg*, Germany, founded in 1527. Other Protestant universities were: *Königsberg* (1544); *Jena* (1558); *Helmstedt* (1575); *Aldorf* (1575); *Giessen* (1607); *Strasbourg* (1621); *Halle* (1693).

18th, 19th and 20th Centuries

Among the more famous institutions in this era was *Göttingen* (1736), whose school of history became celebrated throughout Europe. Others were: *Erlangen* (1743); *Berlin* (1809); *Lemberg* (Lwów) (1816); *Bonn* (1818); *Helsingfors* (1828); the *National University* at Athens (1837); *Bucharest* (1864); *Tokyo* (1877); *Sofia* (1888) and *Kyoto* (1897).

Among the more famous British universities established in the 19th and 20th centuries were the *University of London* (1828); *Manchester* (1851); the *Mason University College* in Birmingham, later *Birmingham University* (1900); *Liverpool* (1903); *Leeds* (1904); and the *University of Sheffield* (1905). The *University of Wales* (1893) is composed of the colleges of Aberystwyth, Bangor and Cardiff.

There are many large and important universities in the British Commonwealth. In Canada, the famous *McGill University* in Montreal was founded in 1821. Others are the *University of Toronto* (1827); *Queens University* at Kingston, Ont. (1841); *Laval University*, Quebec (1852); *Dalhousie*, Halifax (1818), and *Montreal University* (1878).

The early universities in India were patterned after London University rather than on the Oxford-Cambridge style, and were purely examining institutions. *Calcutta*, *Bombay* and *Madras* universities were founded in 1857 as examining bodies.

In Australia, the state plays an important role in the development of universities. The *University of Melbourne* (1853) has the largest enrollment. Among the others are *Adelaide* (1874); *Tasmania* (1890); *Queensland* (1909); *Sydney* (1850), and *Western Australia* (1911).

There are also many well-endowed universities in New Zealand, South Africa, and other parts of the Commonwealth.

By 1800, Russia had only three universities—*Vilna* (1578), *Dorpat* (1632) and *Moscow* (1755). Other institutions developed later were the *University of Kharkov* (1804); *Kazan* (1804); *Warsaw*, now Polish (originally established 1816, but closed 1832-69); *St. Petersburg* (1819); *St. Vladimir* in Kiev (1835); *Odessa* (1865) and *Tomsk*, in Siberia (1888). The building of universities after the Revolution of 1917 was spurred by the Soviet government.

In China, the growth of universities was hampered by the chaotic state of the government in the 1900's, the recurring civil wars and the conflict with Japan.

The United States

Universities in the United States marched in step with the progress of the nation. The early settlers brought a heritage of European culture which they planted in New England soil. The first university in the country was started as *Harvard College* in 1636, with an endowment totaling 800 pounds. Harvard was to become probably the most famous of the American universities.

The *College of William and Mary* (1693) was the second institution of higher learning established in the colonies. Others started during the colonial period (current names only) are: *Yale* (1701); *University of Pennsylvania* (1740); *Princeton* (1746); *Washington and Lee* (1749); *Columbia* (1754); *Brown* (1764); *Rutgers* (1766) and *Dartmouth* (1770).

After the Revolution of 1776, the state tax-supported university was established. The *University of Virginia* (1819) was a notable early example of this type.

Colleges for women grew up in the second quarter of the 19th century. Among these are: *Mt. Holyoke* (1837); *Elmira* (1855); *Vassar* (1861); *Wells* (1868); *Hunter* (1870); *Wellesley* (1870); *Smith* (1871) and *Bryn Mawr* (1880).

In the latter part of the 19th century, universities established by private endowments arose. Typical of these are: *Cornell* (1865), which is also a land-grant institution; *Johns Hopkins* (1876); *Stanford* (1885) and the *University of Chicago* (1890).

Libraries of the World

Europe and Asia

Among the great libraries of the world, the *British Museum* remains in the first rank with more than 6,000,000 printed volumes and 60,000 manuscripts. It contains such outstanding treasures as the *Codex Alexandrinus* and the *Codex Sinaiticus* of the Bible, the best collection of Greek papyri from Egypt, and vast collections of original historical manuscripts of incalculable value. Some 150,000 volumes were destroyed in air raids during World War II, but many were replaced later.

One of the finest libraries in the world is the *Bibliothèque Nationale* in Paris, which has approximately 6,000,000 volumes, 155,000 manuscripts, 450,000 medals and coins, 5,000,000 prints and engravings and 400,000 maps.

The *State Library* in Berlin, founded in 1659-61, was amalgamated in 1947 with the library of the University of Berlin. Prior to World War II, the State Library had 2,850,000 volumes; the new combined library had only 1,500,000. The *State Library* at Munich also suffered extensive war losses, with some 500,000 volumes destroyed; it now contains about 2,000,000. Estimates have placed the war losses of all German libraries at between 20 and 25 million volumes.

The *Nationalbibliothek* in Vienna has about 1,500,000 volumes, a large collection of papyri, and a notable theater and motion picture collection.

While not as large as some of the European state libraries, the *Biblioteca Apostolica Vaticana* in Rome has many priceless old manuscripts bequeathed to the Vatican over the centuries, including the *Codex Vaticanus* of the 4th century.

Three of the more important Italian libraries are the *Biblioteca Nazionale* in Naples, with about 1,400,000 volumes; the *Biblioteca Nazionale Centrale* in Florence, with 4,000,000 volumes; and the *Biblioteca Nazionale Centrale* in Rome, with approximately 1,970,000 volumes.

Other large European libraries are the *Bibliothèque Royale* in Brussels (2,000,000 volumes), the *Biblioteca Nacional* in Madrid (1,500,000), the *University Library* at Amsterdam (more than 1,500,000) and the *Royal Library* in Stockholm (900,000). The *Lenin State Library* in Moscow is said to contain 15,000,000 volumes (a figure that probably includes periodicals), besides many collections of valuable historical documents. In Leningrad, the *Public Library* claims 10,000,000 volumes, and the *Library of the Academy of Sciences* some 8,000,000. There are said to be 350,000 libraries in all parts of the U.S.S.R.

In the Far East, the most extensive libraries are found in Japan, although war damage in 1944-45 was severe. In Tokyo, the *National Diet Library* (formerly the *Imperial Library*) was organized in 1948 as a deposit center. With its various branches, it contains an estimated 4,100,000 volumes. The *University Library* at Kyoto has about 1,820,000.

The oldest national libraries in South America are those of Argentina and Brazil, each founded in 1810; the former has about 600,000 volumes, the latter 1,000,000.

The United States and Canada

The earliest libraries in the colonial era were privately owned, although in 1731 Benjamin Franklin projected the first subscription library in Philadelphia. Endowments helped to set up many of the large

libraries, although many of these institutions are now receiving state or municipal support.

The largest library in the United States is the *Library of Congress*, established in 1800 by Congress. In 1957, it contained more than 11,050,000 books and pamphlets, and total collections of over 36,100,000. It extends services to members of Congress and other government departments, and also offers excellent facilities for persons engaged in scholarly research.

The *New York Public Library*, with some 6,400,000 volumes in 1957, is the largest public library in the U. S.

The *American Library Directory* for 1954 listed 12,478 libraries in the U. S., including 6,925 public (with 3,106 branches), 1,374 college and university, 1,923 special and 2,256 other types.

The growth of libraries attached to colleges and universities in the United States

has been phenomenal, and some of the university libraries are among the largest in the country. Those with more than 1,000,000 volumes each in 1956 were as follows: Harvard, 6,075,000; Yale, 4,280,000; California, including branches, 3,632,000; Illinois, 3,090,000; Michigan, 2,325,000; Columbia, 2,117,000; Chicago, 1,911,000; Minnesota, 1,791,000; Cornell, 1,746,000; Princeton, 1,500,000; Pennsylvania, 1,475,000; Stanford, 1,309,000; Texas, 1,273,000; Duke, 1,198,000; Northwestern, 1,185,000; Ohio State, 1,150,000; Johns Hopkins, 1,068,000; New York University, 1,041,000; Indiana, 1,000,000.

In Canada, the most important public library is that of Toronto, which has more than 875,000 volumes. Large Canadian university libraries include those at Queens (280,000), Toronto (609,000), McGill (720,000), and Laval (339,000). The *American Library Directory* for 1954 listed a total of 719 libraries in Canada, including 683 public.

Museums of the World

(For U. S. Museums, see page 402.)

The modern museum originated during the Renaissance, when the revival of interest in the arts and classical antiquity led princes, nobles and humanists to amass specimens of historical value and to house their collections in special buildings or galleries.

Art Museums

The *British Museum*, London, contains some of the most famous historical objects of the world, including the Elgin Marbles and the Rosetta Stone.

Victoria and Albert Museum, London, whose primary object is to furnish examples to illustrate the history of art, emphasizes architecture and sculpture, ceramics, engraving, book production, paintings, textiles, etc. The library is devoted principally to fine and applied arts of all countries.

National Gallery, London, contains a great number of old Masters, including paintings by Da Vinci, Michelangelo, Tintoretto, Mantegna, Titian, Bellini, Jan van Eyck, Rubens, Rembrandt, Holbein, Constable and Turner.

Tate Gallery, London, established as part of the National Gallery, was badly damaged during air raids of World War II, but was completely restored by 1949.

Wallace Collection, London, has many objects d'art and curios of French origin, and first-rank canvases and etchings of Italian, Spanish, Flemish, Dutch and English artists.

In France, the most famous gallery is the *Louvre* in Paris, noted for the magnificence of its architecture as well as for

its art collection, which is the largest in the world. Other Parisian museums of importance are *Cluny*, *Rodin*, *Guimet*, and *Carnavalet*.

Among the magnificent Italian museums, the *National Museum* at Naples contains one of the best arranged and classified collections. The *Uffizi Gallery* in Florence, founded by the Medicis, has one of the world's largest and best collections of Italian art. Other galleries in Florence are the *Galleria of Modern Art (Pitti Palace)* and the *National Museum (Bargello)*. Rome has numerous museums, including several in the Vatican.

In Berlin, the *National Gallery* was damaged during World War II.

The *Royal Museum of Fine Arts* in Brussels has a fine collection of French, Flemish and Dutch masters and houses many canvases by Rubens, Van Dyck, Jordaens, Rembrandt, Frans Hals and Jan Steen.

The *State Museum* in Amsterdam contains superb works by Rembrandt, Vermeer and others.

Among the notable art museums in other countries are the world-famous *Museo del Prado* in Madrid; the *Tretyakov Gallery* and the *Pushkin State Museum of Fine Arts* in Moscow; the *Hermitage State Museum* in Leningrad; and the *National Museum* in Tokyo, famed for its many Oriental paintings and objects of art.

Science Museums

The *Ashmolean Museum*, oldest in Great Britain, was founded in 1683 by Oxford

University and houses a collection of archeological and classical rarities.

Science Museum of London has exhibits of scientific instruments and appliances which review the progress of science and the history of invention. Other London museums of science are the *Natural History (British Museum)*, the *Imperial War Museum* (exhibits of both World Wars) and the *Geological Museum*.

The *Liverpool Museums* contain valuable collections of natural history and antiquities and are divided into departments of zoology, botany, geology, archeology and ethnology. The buildings were almost completely destroyed during World War II, although most of the exhibits were saved.

The *Manchester Museum* serves as both a municipal and a university museum. The *Bristol Museum* contains departments of geology, zoology, botany, archeology and Bristol antiquities. The *National Museum of Wales* at Cardiff has departments of art, archeology, botany, geology and zoology.

In Edinburgh, Scotland, are the famed *Royal Scottish Museum*, which has collections in art, ethnography, natural history, technology and archeology; and the *National Museum of Antiquities of Scotland*, noted for its coin and manuscript collections.

The *National Museum* in Dublin and the *Municipal Museum* in Belfast have important science collections.

Notable institutions of continental Europe include the *Natural History Museum* in Paris, the *Museum of Oceanography* in Monaco, the *Natural History Museum* in Lisbon, the *State Museum of Geology and Mineralogy* in Leyden (Netherlands), the *Museum of Natural History* in Stock-

holm, the *Natural History Museum* in Vienna, the *Hungarian National Museum* in Budapest, the *National Museum* in Prague, and the various science museums in Berne, Geneva, Zurich and Neuchâtel, Switzerland. Most larger cities of the U.S.S.R. have science museums of varying sizes, some specializing in local exhibits of natural history.

Famous science museums in Germany prior to World War II included the various sections of the *Staatliche Museen* in Berlin (re-established after the war) and the museum of ethnography in Hamburg.

In Calcutta is the *Indian Museum*, outstanding for its marine fauna and vertebrate fossils, and in Bombay the *Victoria and Albert Museum*.

In Australia are the *Queensland Museum* and the *Botanic Museum* in Brisbane, the *South Australian Museum* in Adelaide, and the *Australian Museum* in Sydney.

New Zealand contains the *Canterbury Museum*, Christchurch, rich in local fauna, flora and geological items, and a Maori and Polynesian ethnological collection.

In Africa, the *South African Museum*, Capetown, holds general and local history collections and others illustrating anthropology, ethnology and archeology. The *Durban Museum* contains much anthropological material. In Cairo are the notable collections of the *Egyptian Museum*.

Other museums of note include the *Archeological Museums* at Istanbul, the *Tokyo Science Museum*, the *National Museum of Natural History* in Santiago (Chile), the *National Museum* at Rio de Janeiro, and the *Argentine National Museum of Natural Sciences* at Buenos Aires.

Zoological Gardens

North America has more than 30 major zoos, in the United States, Canada and Mexico. The *Quebec Zoological Society's* collection is made up of Canadian species; Toronto has many exotic species.

The first zoological garden in the United States was established in Philadelphia in 1874. Since that time nearly every large city in the country has acquired a zoo. Among the largest are the celebrated *Bronx Zoo* and the *Central Park Zoo* in New York, the *Lincoln Park Zoo* and the *Brookfield Zoo* in Chicago, and those in St. Louis, Cincinnati, Detroit, Kansas City and San Diego. The *National Zoological Park* in Washington, D. C., in a beautiful setting of hills, woods and streams, was established in 1890 by an act of Congress. Some of the U. S. zoos exhibit their collections in open-air, barless pits; the *Brookfield Zoo* is an example.

In Europe, zoological gardens have long been popular public institutions. The *Jardin d'Acclimatation*, in the Bois de Boulogne, Paris, was established in 1858, and a model zoo at Vincennes was added in 1937 for the Paris Exposition.

Germany had about 20 zoological gardens, many of which were developed in the peacetime years between World Wars I and II. Large zoos were located in Berlin and Frankfurt am Main. In Munich, the animals were grouped according to the continent of their origin. Others were established at Dresden, Leipzig and Cologne. At Stellingen, the *Hagenbeck Garden* became an outstanding show place and distributing center for animals. Smaller collections were established at Düsseldorf, Elberfeld and Hanover. Several German zoos, notably that at Berlin, were destroyed during World War II.

The *Schönbrunn* at Vienna is one of the oldest zoos in Europe. The Budapest zoological gardens house a fine collection of European birds. At Antwerp, the *Royal Zoological Society* founded a large menagerie in 1843. It was seriously damaged by German bombs during World War II.

In the British Isles, the outstanding collection is in the garden of the *London Zoological Society* in Regent's Park. Although this zoo received a number of direct bomb hits in 1940-41 and again in 1944, it remained open throughout World War II; visitors during this period numbered 6,500,000. Manchester and Clifton have smaller gardens, and the one at Edinburgh is famous for its collection of pen-

guins. The *Dublin Zoo* is noted for its lions, many of which were born there.

The Amsterdam zoo, with its East Indian collection and its aquarium, and the Rotterdam gardens are the two best known in the Netherlands. Built on a high elevation, the *Skansen Zoo* in Stockholm exhibits north European specimens. The most important gardens in the U.S.S.R. are found in Moscow, where northern as well as exotic species are collected. The zoo at Rome has part of its collection confined in barless pits. At Lisbon there is a small zoological garden, and in Madrid a part of the original royal menagerie. A new zoo notable for its landscaping was opened at Naples, Italy, in 1952.

Famous Structures

(See also Seven Wonders of the World on page 600.)

Ancient

The *Great Sphinx of Egypt*, one of the wonders of ancient Egyptian architecture, adjoins the pyramids of Giza and has a length of 189 ft. It was built in the 4th dynasty and was used as a temple.

Other Egyptian buildings of note include the *Temples of Karnak and Edfu* and the *Tombs at Beni Hassan*.

The *Parthenon of Greece*, built on the Acropolis in Athens, was the chief temple to the goddess Athena. It was believed to have been completed by 438 B.C. The present temple remained intact until the 5th century A.D. Today, though the Parthenon is in ruins, its majestic proportions are still discernible.

Other great structures of ancient Greece were the *Temples at Paestum* (about 540 and 420 B.C.); the *Temple of Poseidon* (about 460 B.C.); the *Temple of Apollo at Corinth* (about 540 B.C.); the *Temple of Apollo at Bassae* (about 450-420 B.C.); the famous *Erechtheum* atop the Acropolis (about 421-405 B.C.); the *Temple of Athena Niké at Athens* (about 426 B.C.); the *Olympieum at Athens* (174 B.C.-A.D. 131); the *Athenian Treasury at Delphi* (about 515 B.C.); the *Propylaea of the Acropolis at Athens* (437-432 B.C.); the *Theater of Dionysus at Athens* (about 350-325 B.C.); the "*House of Cleopatra*" at Delos (138 B.C.) and the *Theater at Epidaurus* (about 325 B.C.).

The *Colosseum (Flavian Amphitheater)* of Rome, the largest and most famous of the Roman amphitheaters, was opened for use A.D. 80. Elliptical in shape, it consisted of three stories and an upper gallery, rebuilt in stone in its present form in the third century A.D. Its seats rise in tiers, which in turn are buttressed by concrete vaults and stone piers. It could seat between 40,000 and 50,000 spectators. The

Colosseum was principally used for gladiatorial combat.

The *Pantheon at Rome*, begun by Agrippa in 27 B.C. as a temple, was rebuilt in its present circular form by Hadrian (A.D. 110-25). Literally the Pantheon was intended as a temple of "all the gods." It is remarkable for its perfect preservation today, and it has served continuously for 20 centuries as a place of worship.

Famous Roman arches include the *Arch of Constantine* (about A.D. 315) and the *Arch of Titus* (about A.D. 80).

Later European

St. Mark's Cathedral in Venice (1063-67), one of the great examples of Byzantine architecture, was begun in the 9th century. Partly destroyed by fire in 976, it was later rebuilt as a Byzantine edifice.

Other famous Byzantine examples of architecture are *St. Sophia* in Constantinople (A.D. 532-37); *San Vitale* in Ravenna (542); *St. Paul's Outside the Walls*, Rome (5th century); the *Kremlin* baptism and marriage church, Moscow (begun in 1397); and *St. Lorenzo Outside the Walls*, Rome, begun in 588.

The *Cathedral Group at Pisa* (1067-1173), one of the most celebrated groups of structures built in Romanesque style, consists of the cathedral, the cathedral's baptistery, and the *Leaning Tower*. This trio forms a group by itself in the northwest corner of the city. The cathedral and baptistery are built in varicolored marble. The campanile (Leaning Tower) is 179 ft. high and leans more than 16 feet out of the perpendicular. There is little reason to believe that the architects intended to have the tower lean.

Other examples of Romanesque architecture include the *Vézelay Abbey* in France (1130); the *Church of Notre-Dame-*

du-Port at Clermont-Ferrand in France (1100); the *Church of San Zeno* (begun in 1138) at Verona, and *Durham Cathedral* in England.

The *Alhambra* (1248-1354), located in Granada, Spain, is universally esteemed as one of the greatest masterpieces of Moslem architecture. Designed as a palace and fortress for the Moorish monarchs of Granada, it is surrounded by a heavily fortified wall more than a mile in perimeter. The location of the Alhambra in the Sierra Nevada provides a magnificent setting for this jewel of Moorish Spain.

The *Tower of London* is a group of buildings and towers covering 13 acres along the north bank of the Thames. The central *White Tower*, begun in 1078 during the reign of William the Conqueror, was originally a fortress and royal residence, but was later used as a prison. The *Bloody Tower* is associated with Anne Boleyn and other notables.

Westminster Abbey, in London, was begun in 1045 and completed in 1065. It was rebuilt and enlarged in 1245-50.

Notre-Dame de Paris (begun in 1163), one of the great examples of Gothic architecture, is a twin-towered church with a steeple over the crossing and immense flying buttresses supporting the masonry at the rear of the church.

Other famous Gothic structures are *Chartres Cathedral* (12th century); *Sainte Chapelle*, Paris (1246-48); *Laon Cathedral*, France (1160-1205); *Rheims Cathedral* (about 1210-50; rebuilt after its almost complete destruction in World War I); *Rouen Cathedral* (13th-16th centuries); *Amiens Cathedral* (1218-69); *Beauvais Cathedral* (begun 1247); *Salisbury Cathedral* (1220-60); *York Minster* or the *Cathedral of St. Peter* (begun in the 7th century); *Milan Cathedral* (begun 1386); and *Cologne Cathedral* (13th-19th centuries; badly damaged in World War II).

The *Duomo* (cathedral) in Florence was founded in 1298, completed by Brunelleschi and consecrated in 1436. The oval-shaped dome dominates the entire structure.

The *Vatican* is a group of buildings in Rome comprising the official residence of the Pope. The *Basilica of St. Peter*, the largest church in the Christian world, was begun in 1450. The *Sistine Chapel*, begun in 1473, is noted for the art masterpieces of Michelangelo, Botticelli and others. The *Basilica of the Savior* (known as *St. John Lateran*) is the first-ranking Catholic Church in the world, for it is the cathedral of the Pope.

Other examples of Renaissance architecture are the *Palazzo Riccardi*, the *Palazzo Pitti* and the *Palazzo Strozzi* in Florence; the *Farnese Palace* in Rome; *Palazzo Grimani* (completed about 1550) in Venice;

the *Escorial* (1563-93) near Madrid; the *Town Hall* of Seville (1527-32); the *Louvre*, Paris; the *Château* at Blois, France; *St. Paul's Cathedral*, London (1675-1710; badly damaged in World War II); the *Ecole Militaire*, Paris (1752); the *Pazzi Chapel*, Florence, designed by Brunelleschi (1429); the *Palace of Fontainebleau* and the *Château de Chambord* in France.

The *Palace of Versailles*, containing the famous Hall of Mirrors, was built during the reign of Louis XIV and served as the royal palace until 1793.

Outstanding European buildings of the 18th and 19th centuries are the *Superga* at Turin, the *Hôtel-Dieu* in Lyon, the *Belvedere Palace* at Vienna, the *Royal Palace* of Stockholm, the *Opera House* of Paris (1863-75); the *Bank of England*, the *British Museum*, the *University of London* and the *Houses of Parliament*, all in London; the *Panthéon*, the *Church of the Madeleine*, the *Bourse* and the *Palais de Justice* in Paris.

The *Eiffel Tower*, in Paris, was built for the Exposition of 1889 by Alexandre Eiffel. It is 984 ft. high.

Asiatic and African

The *Taj Mahal* (1632-50), at Agra, India, built by Shah Jahan as a tomb for his wife, is considered by some as the most perfect example of the Mogul style and by others as the most beautiful building in the world. Four slim white minarets flank the building, which is topped by a white dome; the entire structure is of marble.

Other examples of Indian architecture are the temples at Benares and Tanjore.

Among famed Moslem edifices are the *Dome of the Rock* or *Mosque of Omar*, Jerusalem (A.D. 691); the *Citadel* (1166), and the *Tombs of the Mamelukes* (15th century), in Cairo; the *Tomb of Humayun* in Delhi; the *Blue Mosque* (1468) at Tabriz and the *Tamerlane Mausoleum* at Samarkand.

Angkor Vat, outside the city of Angkor Thom, Cambodia, is one of the most beautiful examples of Cambodian or Khmer architecture. The sanctuary was built during the 12th century.

Great Wall of China (228 B.C.?), designed specifically as a defense against nomadic tribes, has numerous large watch towers which could be called buildings. It was erected by Emperor Ch'in Shih Huang Ti and is 1,400 miles long. Built mainly of earth and stone, it varies in height between 18 and 30 feet.

Typical of Chinese architecture are the pagodas or temple towers. Among some of the better known pagodas are the *Great Pagoda of the Wild Geese* at Sian (founded in 652); *Nan 'ta* (11th century) at Fang Shan; the *Pagoda of Sung Yueh Ssu* (A.D. 523) at Sung Shan, Honan.

Other well-known Chinese buildings are the *Drum Tower* (1273), the *Three Great Halls* in the Purple Forbidden City (1627), *Buddha's Perfume Tower* (19th century), the *Porcelain Pagoda* and the *Summer Palace*, all at Peiping.

United States

Rockefeller Center, in New York City, extends from 5th to 6th Aves. between 48th and 52nd Sts. (and halfway to 7th Ave. between 50th and 51st Sts.). It occupies 14 ac. and has 16 buildings.

Grant's Tomb, at Riverside Dr. near 122nd St. in New York City, contains the bodies of Ulysses S. Grant and his wife. It was completed in 1897.

The Cathedral of St. John the Divine, at Cathedral Pkwy. and Amsterdam Ave. in New York City, was begun in 1892 but

is not yet completed. When completed, it will be the largest Gothic cathedral in the world: 601 ft. long, 146 ft. wide at the nave, 320 ft. wide at the transept.

St. Patrick's Cathedral, at 5th Ave. and 50th St. in New York City, has a seating capacity of 4,500. The nave was opened in 1877; the cathedral was dedicated in 1879.

Lincoln Memorial, in Washington, D. C., was dedicated in 1922. It has 36 columns (the number of states in 1865), each 44 ft. high. The main chamber contains a statue of Lincoln.

Independence Hall, in Philadelphia, was the scene of the signing of the Declaration of Independence and the drawing up of the U. S. Constitution. It was built between 1732-41 as the State House. The Liberty Bell is on the first floor.

Great Dams of the World

Reservoir capacity, thousands of acre feet	Name	Location	Maximum height, feet	Date completed
31,142	Hoover	Colorado River, Ariz.-Nev.	726	1936
28,040	Glen Canyon	Colorado River, Arizona	700	*
n.a.	Kariba	Zambesi River, Rhodesia	420	*
24,500	Garrison	Missouri River, N. Dak.	210	1954
19,600	Oahe	Missouri River, S. Dak.	230	*
19,412	Fort Peck	Missouri River, Mont.	250	1940
9,402	Grand Coulee	Columbia River, Wash.	550	1942
6,200	Fort Randall	Missouri River, S. Dak.	150	1954
6,100	Kentucky	Tennessee River, Ky.	160	1944
6,089	Wolf Creek	Cumberland River, Ky.	242	1951
5,825	Denison	Red River, Okla.-Tex.	165	1944
5,407	Bull Shoals	White River, Ark.	278	1953
5,000	Presidente Alemán	Rio Tonto, Mex.	200	1955
4,500	Shasta	Sacramento River, Calif.	602	1945
4,085	Falcon	Rio Grande, Tex.-Mex.	128	1953
4,060	Aswan	Nile River, Egypt	174	1934
3,468	Hungry Horse	Flathead, S. Fk., Mont.	564	1953
3,263	Lázaro Cárdenas (El Palmito)	Nazas River, Mex.	295	1948
3,000	Salt Springs	North Fork, Mokelumne River, Calif.	345	1931
2,567	Norris	Clinch River, Tenn.	265	1936
2,500	Trinity	Trinity River, California	537	*
2,432	Alvaro Obregón (Oviachic)	Yaqui River, Sonora, Mex.	187	1953
2,300	Saluda	Saluda River, S. C.	208	1930
2,207	Elephant Butte	Rio Grande, N. Mex.	301	1916
2,092	Center Hill	Caney Fork River, Tenn.	240	1950
2,051	Canyon Ferry	Missouri River, Mont.	225	1954
1,983	Norfolk	North Fork River, Ark.	230	1944
1,980	Chelsea	Gatineau River, Canada	100	1927
1,951	Marshall Ford (Mansfield)	Colorado River, Tex.	278	1942
520	Friant	San Joaquin River, California	319	1942
493	Anderson Ranch	Boise River, Idaho	456	1950
456	Shoshone	Shoshone Canyon, Wyoming	329	1910
286	Arrowrock	Boise River, Idaho	350	1915
n.a.	Valont	Italy	840	*
n.a.	Mauvoisin	Dranse River, Switzerland	780	1957
n.a.	Grand Dixence	Dixence River, Switzerland	584†	*
n.a.	Bhakra	India	680	*
n.a.	Brownlee	Snake River, Idaho-Oregon	400	1958

* Under construction in 1959. † Initial stage of 3 stages. NOTE: n.a. indicates data not available.

Notable Modern Bridges

Length of channel span, feet	Name	Location	Type*	Year completed
4,200	GOLDEN GATE	San Francisco	S	1937
3,800	MACKINAC STRAITS	Michigan	S	1957
3,500	GEORGE WASHINGTON	New York City	S	1931
2,800	TACOMA NARROWS	Tacoma, Wash.	S	1950
2,310	TRANSBAY	San Francisco	S	1936
2,300	BRONX-WHITESTONE	New York City	S	1939
2,150	DELAWARE MEMORIAL	Near Wilmington, Del.	S	1951
2,000	WALT WHITMAN	South Philadelphia, Pa.	S	1957
1,850	AMBASSADOR	Detroit, Mich.	S	1929
1,800	QUEBEC	Near Quebec, Canada	C	1917
1,750	DELAWARE RIVER	Philadelphia, Pa.	S	1926
1,700	FORTH	Firth of Forth, Scotland	C	1889
1,652	KILL VAN KULL	Bayonne, N. J.	SA	1931
1,650	SYDNEY HARBOR	Sydney, Australia	SA	1932
1,632	BEAR MOUNTAIN	Peekskill, N. Y.	S	1924
1,600	CHESAPEAKE BAY	Near Annapolis, Md.	S	1952
1,600	WILLIAMSBURG	New York City	S	1903
1,595.5	BROOKLYN	New York City	S	1883
1,550	LIONS GATE	Vancouver, Canada	S	1939
1,500	MID-HUDSON	Poughkeepsie, N. Y.	S	1930
1,500	HOWRAH	Calcutta, India	C	1943
1,470	MANHATTAN	New York City	S	1909
1,447	ANGUS L. MACDONALD	Halifax, N. S., Canada	S	1954
1,400	TRANSBAY	Oakland, Calif.	C	1936
1,380	TRIBOROUGH	New York City	S	1936
1,240	COLOGNE-RODENKIRCHEN	Germany	S	1954
1,212	TAPPAN ZEE	Nyack, N. Y.	C	1956
1,207	ST. JOHNS	Portland, Oreg.	S	1931
1,200	LONGVIEW	Longview, Wash.	C	1930
1,200	MT. HOPE	Near Bristol, R. I.	S	1929
1,182	QUEENSBORO	New York City	C	1909
1,114	FLORIANÓPOLIS	Florianópolis, Brazil	S	1926
1,100	CARQUINEZ STRAIT	Near San Francisco	C	1927
1,097	MONTREAL HARBOR	Montreal, Canada	C	1930
1,080	DEER ISLE	Deer Isle, Me.	S	1939
1,070	RICHMOND-SAN RAFAEL	San Francisco Bay	C	1956
1,057	CINCINNATI	Cincinnati, Ohio	S	1867
1,050	COOPER RIVER	Charleston, S. C.	C	1929
1,042	NAGASAKI	Japan	SA	1955
1,034	COLOGNE-MÜLHEIM	Germany	S	1951
1,010	WHEELING	Wheeling, W. Va.	S	1849
977.5	HELL GATE	New York City	SA	1917
963	EAST ST. LOUIS	East St. Louis, Ill.	C	1950
950	RAINBOW	Niagara Falls, N. Y.	SA	1941
943	GRAND MERE	Quebec, Canada	S	1928
936	DUISBURG	Germany	S	1954
930	PEACE RIVER	Alaska Highway	S	1943
924	STORY	Queensland, Australia	C	1940
875	NATCHEZ	Natchez, Miss.	C	1940
871	BLUE WATER	Port Huron, Mich.	C	1938
855	SANDO	Sando, Sweden	CA	1943
864	SUNSHINE SKYWAY	St. Petersburg, Fla.	C	1954
856	SAVA RIVER	Belgrade, Yugoslavia	CG	1956
845	DUBUQUE	Dubuque, Iowa	CT	1943
800	KINGSTON-RHINECLIFF	Hudson River, N. Y.	CT	1956
800	THOUSAND ISLANDS	Alexandria Bay, N. Y.	S	1938
800	RIP VAN WINKLE	Catskill, N. Y.	C	1935
800	HENRY HUDSON	New York City	SA	1936

* C—Cantilever. S—Suspension. SA—Steel Arch. CA—Concrete Arch. CT—Continuous Truss. CG—Continuous Girder.

Great Disasters

Earthquakes and Volcanic Eruptions

- A.D. 79 Aug. 24, ITALY: eruption of Mt. Vesuvius buried cities of Pompeii and Herculaneum, killing thousands.
- 1755 Nov. 1, PORTUGAL: one of the most severe of recorded earthquakes leveled Lisbon and was felt as far away as southern France and North Africa; between 10,000 and 20,000 killed in Lisbon alone.
- 1883 Aug. 26-28, NETHERLANDS INDIES: eruption of Krakatoa; violent explosions destroyed two-thirds of island. Sea waves occurred as far away as Cape Horn, and possibly England. Estimated 36,000 dead.
- 1902 May 8, MARTINIQUE, WEST INDIES: Mt. Pelée erupted and wiped out city of St. Pierre; 40,000 dead.
- 1906 April 18, SAN FRANCISCO: earthquake accompanied by fire razed more than 4 sq. mi.; more than 500 dead or missing; property damage about 250-300 millions.
- 1908 Dec. 28, MESSINA, SICILY: about 85,000 killed and city totally destroyed by one of most disastrous of recorded earthquakes.
- 1923 Sept. 1, JAPAN: earthquake destroyed third of Tokyo and most of Yokohama; more than 90,000 persons were killed.
- 1935 May 31, INDIA: earthquake at Quetta killed an estimated 50,000.
- 1939 Jan. 24, CHILE: earthquake razed some 50,000 sq. mi.; 30,000 persons killed.
- 1939 Dec. 27, NORTHERN TURKEY: severe quakes destroyed city of Erzingan; about 100,000 casualties.
- 1949 Aug. 5, ECUADOR: earthquake killed about 6,000 and razed 50 towns.
- 1950 Aug. 15, INDIA: second heaviest earthquake on record affected 30,000 sq. mi. in Assam; 20,000-30,000 believed killed.
- 1951 Jan. 18-21, PAPUA TERRITORY, NEW GUINEA: eruption of Mt. Lamington killed more than 3,000.
- 1954 Sept. 9, ALGERIA: about 1,500 reported dead in Northern Algerian earthquake.
- 1956 June 17, AFGHANISTAN: about 2,000 killed during 10-day series of earthquakes in vicinity of Kabul.
- 1957 July 2, NORTHERN IRAN: 1,564 reported dead in earthquake.
- 1957 July 28, MEXICO: about 60 dead in quakes centering in Mexico City and vicinity of Acapulco.
- 1957 Dec. 13-15, WESTERN IRAN: 1,392 dead in earthquake.

Floods, Avalanches and Tidal Waves

WORLD

- 1228 HOLLAND: 100,000 persons reputedly drowned by sea flood in Friesland section.
- 1642 CHINA: rebels besieging Kaifeng destroyed seawall, causing flood that drowned 300,000 inhabitants.
- 1887 CHINA: hundreds of thousands of lives were reputedly lost in Honan province in overflow of Hwang Ho River.
- 1896 JAPAN: earthquake and tidal wave at Sanriku killed 27,000.
- 1939 CHINA: floods in north; casualties estimated at 10,000,000 homeless, starved or drowned.
- 1946 ALASKA-HAWAII: series of tidal waves in Pacific originating off Alaska killed about 150 in Hawaii.
- 1947 JAPAN: floods in wake of typhoon killed about 2,000 persons on Honshu Island.
- 1948 TURKEY: hundreds of persons were drowned when two rivers in southern Turkey burst their dikes.
- 1948 CHINA: about 1,000 reported dead in floods near Foochow.
- 1950 CHINA: floods in eastern and southern China left 1,000,000 homeless and killed 500.
- 1951 ALPS: snow avalanches killed more than 200 in Alpine regions of Switzerland, Italy, France and Austria.
- 1951 MANCHURIA: floods killed 1,800; 3,000 missing.
- 1953 NORTHWEST EUROPE: storm followed by floods devastated North Sea coastal areas. Netherlands was hardest hit, with 1,794 dead.
- 1954 IRAN: flash flood reportedly killed 2,000 religious pilgrims.
- 1955 INDIA: floods in Punjab, Patiala and at Delhi reported to have killed 1,700.
- 1956 CHINA: floods in three provinces following typhoon killed more than 2,000.

UNITED STATES

- 1889 PENNSYLVANIA: more than 2,000 died in Johnstown flood.
- 1913 OHIO AND INDIANA: floods of Ohio and Indiana rivers took 730 lives.

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|------|--|------|--|
| 1927 | MISSISSIPPI VALLEY: floods inundated 20,000 sq. mi.; 700,000 were left homeless. | 1954 | TEXAS-MEXICO BORDER: flood of the Rio Grande river killed 50 or more persons. |
| 1937 | MISSISSIPPI AND TRIBUTARY VALLEYS: floods in the Allegheny, Mississippi, Ohio valleys killed hundreds. | 1955 | NORTHERN CALIFORNIA, OREGON: week of rains caused \$150,000,000 damage, 74 deaths. |

Tornadoes, Typhoons and Hurricanes

(For tornadoes and hurricanes in the U. S., see Pages 382-84.)

WORLD

- 1864 Oct. 5, INDIA: most of Calcutta denuded by cyclone; 70,000 killed.
- 1876 Oct. 31, INDIA: cyclone, tidal wave swept 3,000 sq. mi.; 215,000 killed.
- 1882 June 6, INDIA: cyclone and tidal wave killed 100,000 in Bombay.
- 1906 CHINA: typhoon at Hong Kong killed about 10,000.
- 1930 Sept. 3, SANTO DOMINGO (now Ciudad Trujillo): hurricane killed about 2,000 and injured 6,000.
- 1934 Sept. 21, JAPAN: hurricane killed more than 4,000 on Honshu.
- 1935 Oct. 25, HAITI: hurricane, flood killed 2,000 in Jérémie and Jacmel.

- 1942 Oct. 16, INDIA: cyclone devastated Bengal; about 40,000 lives lost.
- 1949 Oct. 27, INDIA: cyclone along south-eastern coast killed about 1,000.
- 1949 Oct. 31-Nov. 2, PHILIPPINES: 1,000 believed dead following typhoon.
- 1952 Oct. 20-22, INDO-CHINA, PHILIPPINES: typhoons killed more than 1,000.
- 1953 Sept. 25, VIET-NAM: typhoon left about 1,000 dead.
- 1954 Sept. 26, JAPAN: typhoon off Hako-date killed 1,200-1,600.
- 1955 Sept. 19, MEXICO: Hurricane Hilda killed over 200 in Tampico area.
- 1958 Sept. 27-28, JAPAN: Typhoon Ida killed over 600 persons.

Fires and Explosions

WORLD

- 1666 Sept. 2, ENGLAND: "Great Fire of London" destroyed 13,200 houses, St. Paul's Church, 86 parish churches, etc. Damage 10 million pounds.
- 1812 Sept. 14, RUSSIA: fire started by Russians in Moscow after French occupation destroyed 30,800 houses.
- 1917 Dec. 6, CANADA: explosion and fire at Halifax when ammunition ship collided with a vessel; 1,500 dead.
- 1922 ASIA MINOR: more than three-fifths of Smyrna destroyed by fire following Turkish occupation.
- 1948 July 28, GERMANY: explosion in I. G. Farben Ludwigshaven works killed hundreds, injured 6,000.
- 1949 Sept. 2, CHINA: fire on Chungking waterfront killed 1,700 and gutted 10,000 buildings.
- 1955 June 11, FRANCE: crash and explosion of racing car into crowd during Grand Prix race, Le Mans, killed 82.
- 1956 Aug. 7, COLOMBIA: about 1,200 reported killed when 7 army ammunition trucks exploded at Cali.
- 1956 Aug. 8, BELGIUM: 262 died in coal mine fire at Marcinelle.
- 1958 Feb. 19, INDIA: explosion in coal mine near Asansol killed 181.
- 1958 Feb. 19, BAHREIN: British freighter *Seistan* exploded; 53 killed.

UNITED STATES

- 1835 Dec. 16, NEW YORK CITY: 530 buildings destroyed by fire.
- 1871 Oct. 8, CHICAGO: the "Chicago Fire," which started in barn, swept 2,124 acres, burned 17,450 buildings, killed 250 persons; 196 million damage.
- 1872 Nov. 9, BOSTON: fire destroyed 800 buildings; 75 million damage.
- 1903 Dec. 30, CHICAGO: Iroquois Theatre fire killed 602.
- 1904 Feb. 7, BALTIMORE, Md.: fire destroyed most of business section; 125 million damage.
- 1937 March 18, NEW LONDON, TEXAS: explosion destroyed schoolhouse; 413 children and 14 teachers killed.
- 1942 Nov. 28, BOSTON: Coconut Grove night club fire killed about 500.
- 1944 July 17, PORT CHICAGO, CALIF.: more than 300 killed in explosion of two ammunition ships.
- 1946 Dec. 7, ATLANTA: fire in Winecoff Hotel killed 119.
- 1947 March 25, CENTRALIA, ILL.: explosion in coal mine killed 111 miners.
- 1947 April 16-18, TEXAS CITY, TEXAS: most of city destroyed, over 500 dead following explosion on ship.
- 1951 Dec. 21, near WEST FRANKFORT, ILL.: 119 coal miners died in explosion.

- 1953 Oct. 16, BOSTON, MASS.: explosion and fire aboard U. S. aircraft carrier *Leyte* killed 37.
- 1956 Nov. 25, near SAN DIEGO, CALIF.: forest fires destroyed about 40,000 ac.; 11 killed.
- 1957 Feb. 4, near BISHOP, VA.: 37 died in coal mine blast.
- 1957 Feb. 5, RENO, NEV.: gas explosions destroyed city block; 2 died.
- 1958 April 18, OKINAWA: underwater explosion of U. S. munitions ship, sunk in World War II, killed 40 persons.
- 1958 Dec. 1, CHICAGO, ILL.: fire at Our Lady of the Angels school killed 93 children and 3 nuns.
- 1959 Mar. 5, near LITTLE ROCK, ARK.: fire destroyed dormitory of Arkansas Negro Boys Industrial School; 21 dead.

Shipwrecks (not including military or naval action)

WORLD

- 1833 May 11, *LADY OF THE LAKE*: bound from England to Quebec, struck iceberg; 215 perished.
- 1853 Sept. 29, *ANNIE JANE*: emigrant vessel off coast of Scotland; 348 died.
- 1912 March 5, *PRINCIPE DE ASTURIAS*: Spanish steamer struck rock off Sebastien Pt.; 500 drowned.
- 1912 April 15, *TITANIC*: sank after colliding with iceberg; 1,513 died.
- 1914 May 29, *EMPRESS OF IRELAND*: sank after collision in St. Lawrence River; 1,024 perished.
- 1928 Nov. 12, *VESTRIS*: British steamer sank in gale off Virginia; 110 died.
- 1931 June 14, French excursion steamer overturned in gale off St. Nazaire; approximately 450 died.
- 1939 June 1, Submarine *THETIS*: sank in Liverpool Bay, Eng.; 99 perished.
- 1942 Oct. 2, *QUEEN MARY*: rammed and sank a British cruiser; 338 aboard the cruiser died.
- 1948 Dec. 3, *KIANGYA*: Chinese refugee ship wrecked in explosion; about 1,000 believed dead.
- 1949 Jan. 27, *TAIPING*: Chinese liner collided with collier and both sank; at least 600 died.
- 1949 Sept. 17, *NORONIC*: Canadian Great Lakes cruise ship burned at Toronto dock; about 130 died.
- 1950 Jan. 12, *TRUCULENT*: British submarine sank in Thames estuary after collision with tanker; 64 dead.
- 1951 April 16, *AFFRAY*: British submarine sank in English channel; 75 dead.
- 1953 Jan. 9, *CHANG TYONG-HO*: South Korean ferry foundered off Pusan; 249 reported dead.
- 1953 Jan. 31, *PRINCESS VICTORIA*: British ferry sank in Irish Sea; 133 reported lost.
- 1953 Aug. 1, *MONIQUE*: French motor ship with 120 aboard disappeared in South Pacific.
- 1956 July 25, *ANDREA DORIA*: Italian liner collided with Swedish liner *Stockholm* off Nantucket Island, Mass., sinking next day; 52, mostly passengers aboard Italian ship, dead or unaccounted for; more than 1,600 rescued.
- 1958 March 1, Passenger ferry sank in squall in Sea of Marmara, Turkey; over 200 killed.
- 1959 Jan. 30, *HANS HEDTOFT*: Danish passenger-cargo ship hit iceberg and sank off Greenland; 95 dead.

U. S. AND U. S. LINES

- 1865 April 27, *SULTANA*: boiler explosion on Mississippi River steamboat near Memphis; 1,450 killed.
- 1898 Nov. 26, *CITY OF PORTLAND*: Loss of 157 off Cape Cod.
- 1904 June 15, *GENERAL SLOCUM*: excursion steamer burned in New York Harbor; 1,021 perished.
- 1915 July 24, *EASTLAND*: Great Lakes excursion steamer overturned in Chicago River; 812 died.
- 1934 Sept. 8, *MORRO CASTLE*: about 130 killed in fire occurring off Asbury Park, N. J.
- 1939 May 23, Submarine *SQUALUS*: sank with 59 men off Hampton Beach, N. H.; 33 members of the crew were rescued.
- 1945 April 9, U. S. ship, loaded with aerial bombs, exploded at Bari, Italy; at least 360 killed.
- 1952 Jan. 10, *FLYING ENTERPRISE*: freighter sank about 35 miles off southwest England after valiant 12-day effort by captain, Henrik K. Carlsen, to save ship.
- 1952 April 26, *HOBSON*: minesweeper collided with aircraft carrier *Wasp* and sank during night maneuvers in mid-Atlantic; 176 persons were reported lost.
- 1954 Oct. 7, *MORMACKITE*: freighter capsized off Cape Henry, Va.; 37 lost.
- 1956 Sept. 15, *PELAGIA*: freighter sank in storm off Norway; 32 lost.

Aircraft Accidents (not including military or naval action)

WORLD

- 1921 Aug. 24, ENGLAND: ZR-2, British dirigible, broke in two on trial trip near Hull; 62 died.
- 1930 Oct. 5, FRANCE: British dirigible, R-101, crashed at Beauvais; 47 died.
- 1935 May 18, U.S.S.R.: stunt flier crashed into giant plane, the *Maksim Gorky*; 49 killed.
- 1938 July 24, COLOMBIA: military plane crashed into grandstand during air review at Bogotá, killing 53.
- 1947 Feb. 15, COLOMBIA: Avianca airliner crashed near Bogotá; 53 killed.
- 1950 March 12, near CARDIFF, WALES: crash of chartered airliner killed 80.
- 1950 Nov. 13, near GRENOBLE, FRANCE: Canadian plane carrying Holy Year pilgrims crashed; 58 dead.
- 1956 Feb. 18, near VALLETTA, MALTA: Scottish airliner crash killed 50.
- 1956 Feb. 20, near CAIRO, EGYPT: desert crash of French airliner; 52 died.
- 1956 June 20, off ASBURY PARK, N. J.: Venezuelan airliner exploded and fell into Atlantic, killing 74.
- 1956 Dec. 9, near CHILLIWACK, B. C., CANADA: Canadian airliner crashed; all 62 aboard killed.
- 1957 March 17, near CEBU CITY, PHILIPPINES: Pres. Ramón Magsaysay and 24 others killed in crash.
- 1957 July 16, near BIAK ISLAND, NEW GUINEA: Crash of Dutch airliner killed 57.
- 1957 Aug. 11, near QUEBEC, CANADA: 79 died in crash of chartered transatlantic airliner; worst Canadian air accident to date.
- 1958 Feb. 6, near MUNICH, GERMANY: British airliner crashed and burned; 21 persons, including 7 members of Manchester soccer team, were killed.
- 1958 Aug. 14, near IRELAND: Dutch KLM Super-Constellation crashed into North Atlantic; 99 killed.
- 1958 Oct. 17, near KANASH, U.S.S.R.: Soviet jet airliner crashed; 75 dead.
- 1959 Jan. 16, MAR DEL PLATA, ARGENTINA: Argentine airliner crashed; 51 dead.
- 1959 June 26, MILAN, ITALY: TWA Constellation broke apart and crashed; 69 killed.
- U. S. AND U. S. LINES
- 1925 Sept. 3, CALDWELL, OHIO: U. S. dirigible *Shenandoah* broke apart, killing 14.
- 1933 April 4, NEW JERSEY COAST: U. S. dirigible *Akron* crashed into sea; 73 died.
- 1937 May 6, LAKEHURST, N. J.: German zeppelin *Hindenburg* destroyed by fire at tower mooring; 36 killed.
- 1947 June 13, near LEESBURG, VA.: fifty killed in crash of airliner.
- 1947 Oct. 24, BRYCE CANYON, UTAH: airliner crashed into hillside after catching fire in midair; 52 killed.
- 1949 June 7, near SAN JUAN, P. R.: crash of converted army transport into ocean killed 53; 28 rescued.
- 1949 Nov. 1, WASH., D. C.: fighter plane rammed airliner, killing 55.
- 1950 Aug. 31, near CAIRO, EGYPT: crash of U. S. airliner killed 55, including 23 Americans.
- 1951 March 23, ATLANTIC OCEAN: U. S. Air Force transport with 53 aboard disappeared.
- 1951 April 25, near KEY WEST, FLA.: Cuban airliner and U. S. Navy plane collided; 43 killed.
- 1951 June 30, ROCKY MOUNTAIN NATIONAL PARK, COLO.: airliner crash killed 50.
- 1951 Dec. 16, ELIZABETH, N. J.: nonscheduled airliner crash killed 56.
- 1952 Jan. 22, ELIZABETH, N. J.: 29 killed, including former Sec. of War Robert P. Patterson, when airliner hit apartments; 7 were on ground.
- 1952 Feb. 11, ELIZABETH, N. J.: third major air disaster in Elizabeth within 2 months fatally injured 33.
- 1952 April 11, near SAN JUAN, PUERTO RICO: airliner crashed into sea; 52 killed, 17 rescued.
- 1952 April 29, NORTH CENTRAL BRAZIL: airliner bound for New York crashed in jungle; 50 died.
- 1952 Nov. 23, near ANCHORAGE, ALASKA: Air Force transport crash; 52 killed.
- 1952 Dec. 20, MOSES LAKE, WASHINGTON: crash of Air Force "Globemaster" killed 87 servicemen, injured 28.
- 1953 Feb. 14, GULF OF MEXICO: airliner crash during storm killed 46.
- 1953 June 18, near TOKYO, JAPAN: crash of U. S. Air Force "Globemaster" killed 129 servicemen.
- 1953 July 11, PACIFIC OCEAN: airliner crashed about 325 mi. east of Wake Island; 58 persons were killed.
- 1954 Oct. 31, ATLANTIC OCEAN: U. S. navy plane with 42 aboard lost.
- 1955 March 22, near HONOLULU, HAWAII: crash of U. S. navy transport plane killed 66.
- 1955 Aug. 11, near EDELWEILER, GERMANY: two U. S. troop carriers collided; 66 air force personnel killed.
- 1955 Oct. 6, near LARAMIE, WYO.: airliner hit mountain; 66 died.
- 1955 Nov. 1, near LONGMONT, COLO.: crim-

- inally placed time-bomb destroyed airliner in flight, killing 44.
- 1956 June 30, GRAND CANYON, ARIZ.: 128 died in collision of two airliners; worst commercial air disaster to date.
- 1956 July 13, near FORT DIX, N. J.: 45 of 66 aboard killed in crash of U. S. air force transport.
- 1956 Oct. 11, ATLANTIC OCEAN: U. S. Air Force plane with 59 aboard disappeared.
- 1957 Feb. 1, NEW YORK, N. Y.: airliner crash on Rikers Island killed 20 of 101 aboard.
- 1957 March 21, PACIFIC OCEAN: U. S. Air Force plane disappeared; 67 lost.
- 1958 Feb. 1, LOS ANGELES, CALIF.: military air transport and Navy bomber collided in flight; 47 servicemen killed.
- 1958 March 27, BRIDGEPORT, TEX.: 2 Air Force transports collided; 18 killed.
- 1958 April 6, near MIDLAND, MICH.: Capital Airlines Viscount plane crashed; 47 killed.
- 1958 April 21, near LAS VEGAS, NEV.: airliner and Air Force jet plane collided in flight; 49 killed.
- 1959 Feb. 3, NEW YORK, N. Y.: American Airlines Lockheed Electra turboprop plane crashed in East River; 65 dead.
- 1959 May 12, near BALTIMORE, MD.: Capital Airlines Viscount turboprop plane exploded and crashed; 31 dead.

Railroad Accidents

WORLD

- 1857 March 17, DES JARDINS (SOULANGES) CANAL, CANADA: train derailed on bridge; about 60 killed.
- 1864 June 29, near BELOEIL, CANADA: about 90 killed when train ran through open switch.
- 1879 Dec. 28, DUNDEE, SCOTLAND: train blown off Tay bridge; 73 drowned.
- 1881 June 24, near CUARTLA, MEXICO: about 200 died when train fell into river.
- 1882 July 13, near TCHERNY, RUSSIA: more than 150 killed in derailment.
- 1889 June 12, near ARMAGH, IRELAND: about 80 killed in collision.
- 1891 June 14, near BASEL, SWITZERLAND: about 100 killed in collision.
- 1915 May 22, GREINA, SCOTLAND: two passenger trains and troop train collided; 227 killed.
- 1917 Dec. 12, MODANE, FRANCE: almost 550 killed in derailment of troop train near mouth of Mt. Cenis tunnel.
- 1939 Dec. 22, near MAGDEBURG, GERMANY: more than 125 killed in collision; 99 killed in another wreck near Friedrichshafen.
- 1940 Jan. 29, OSAKA, JAPAN: 200 killed in collision.
- 1944 March 2, near SALERNO, ITALY: 521 suffocated when Italian train stalled in tunnel.
- 1949 Oct. 22, near NOWY DWOR, POLAND: more than 200 reported killed in derailment of Danzig-Warsaw express.
- 1950 April 6, near RIO DE JANEIRO, BRAZIL: train wrecked when bridge collapsed; 108 killed or missing.
- 1952 March 4, near RIO DE JANEIRO, BRAZIL: about 120 reported killed in collision of 2 trains.
- 1952 Oct. 8, HARROW-WEALDSTONE, ENGLAND: two express trains crashed into commuter train; 112 dead.
- 1953 Dec. 24, near WAIOURI, NEW ZEALAND: train plunged through bridge; 155 dead and others missing.
- 1953 Dec. 24, near SAKVICE, CZECHOSLOVAKIA: crash of two trains reported to have killed 103.
- 1956 Sept. 2, near MAHBUBNAGAR, INDIA: at least 120 killed when bridge collapsed under train.
- 1957 Sept. 1, near KENDAL, JAMAICA: about 175 killed when train plunged into ravine.
- 1957 Sept. 29, near MONTGOMERY, WEST PAKISTAN: express train crashed into standing oil train; nearly 300 killed.
- 1957 Dec. 4, ST. JOHN'S, ENGLAND: 92 killed, 187 injured as one commuter train crashed into rear of another in dense fog.

UNITED STATES

- 1943 Dec. 16, near RENNERT, N. C.: 72 killed in derailment and collision.
- 1944 Dec. 31, near OGDEN, UTAH: 48 killed in collision.
- 1946 April 25, NAPERVILLE, ILL.: at least 47 killed in collision.
- 1950 Feb. 17, ROCKVILLE CENTRE, N. Y.: head-on crash of two commuter trains killed 30.
- 1950 Nov. 22, RICHMOND HILL, N. Y.: 79 died when one commuter train crashed into rear of another.
- 1951 Feb. 6, WOODBRIDGE, N. J.: 85 died when commuter train plunged through temporary overpass.
- 1958 Sept. 15, near BAYONNE, N. J.: over 40 killed when train went through open drawbridge.

LEADING NATIONS IN RICHES AND RESOURCES

Source: *Encyclopaedia Britannica*.

The designation "n.d." means no data are available. In such cases, the relative rank of the nation is estimated.

Mineral and Metal Production

ANTIMONY ORE (thousands of metric tons, metal content, 1957)

1. China	15.0 ¹
2. U. of So. Africa	10.0
3. Bolivia	6.4
4. Mexico	5.2
5. Yugoslavia	2.6
6. Czechoslovakia	1.6
7. Algeria	1.4
8. Australia	1.1
9. Turkey	0.8
10. Peru	0.8

¹ Estimate.

BAUXITE (thousands of metric tons, 1957)

1. Jamaica	4,708
2. Surinam	3,377
3. British Guiana	2,237
4. France	1,684
5. United States	1,439
6. U.S.S.R.	1,100 ¹
7. Hungary	917
8. Yugoslavia	888
9. Greece	833
10. Fr. West Africa	366

¹ Estimate.

CEMENT (thousands of metric tons, 1957)

1. United States	52,573
2. U.S.S.R.	28,908
3. West Germany	19,252 ¹
4. Japan	15,176
5. France	12,708
6. United Kingdom	12,154
7. Italy	11,869
8. China	6,700
9. India	5,691
10. Canada	5,494

¹ Including Saar.

CHROME (thousands of metric tons, 1957)

1. Turkey	470
2. Philippines	326
3. So. Rhodesia	314
4. U.S.S.R.	300 ¹
5. U. of So. Africa	296
6. United States	58
7. Cuba	40
8. Iran	38
9. Yugoslavia	38
10. India	36

¹ Estimate.

COAL (millions of metric tons, 1958)

1. U.S.S.R.	496.8 ¹
2. United States	385.2 ¹

3. United Kingdom	219.6 ²
4. West Germany	132.0
5. China	123.9 ³
6. Poland	94.8
7. France	57.6
8. Japan	50.4
9. India	45.6
10. U. of So. Africa	37.2

¹ Including lignite. ² Excluding No. Ireland. ³ 1957 figures.

COPPER (thousands of metric tons, smelter, 1958)

1. United States	1,078.4 ¹
2. Chile	440.4
3. No. Rhodesia	376.8
4. U.S.S.R.	372.1 ²
5. Canada	298.8
6. West Germany	258.0
7. Belgian Congo	240.0 ²
8. United Kingdom	195.6
9. Belgium	154.8
10. Japan	123.6 ¹

¹ Including secondary copper. ² Estimate.

GOLD (thousands of kilograms, 1957)

1. U. of So. Africa	529.7
2. U.S.S.R.	349.1 ¹
3. Canada	137.5
4. United States	56.0
5. Australia	33.7
6. Ghana	24.6
7. So. Rhodesia	16.7
8. Philippines	11.8
9. Belgian Congo	11.6
10. Mexico	10.7

¹ Estimate.

IRON ORE (millions of metric tons, 1958)¹

1. U.S.S.R.	88.8
2. United States	69.6
3. France	60.0
4. Sweden	19.2
5. Venezuela	15.6
6. United Kingdom	14.4
7. Canada	14.4 ²
8. West Germany	13.2
9. China	11.0 ³
10. Luxemburg	6.6

¹ Approximate metal content: U.S., 50%; U.S.S.R., 60%; France, 35%; Canada, 55%; Sweden, 60%; United Kingdom, 30%; Venezuela, 65%; West Germany, 30%; China, unknown; Luxemburg, 30%. ² Shipments only. ³ 1956 estimate.

LEAD (thousands of metric tons, refined, 1958)

1. United States	474.0
2. U.S.S.R.	290.1 ¹

3. Australia	254.4
4. Mexico	200.4 ²
5. West Germany	134.4
6. Canada	121.2
7. Belgium	96.0
8. France	93.6 ²
9. Yugoslavia	84.0
10. United Kingdom	81.6

¹ 1956 estimate. ² Lead content of ores. ³ Including secondary lead.

MANGANESE ORE (thousands of metric tons, metal content, 1957)

1. U.S.S.R.	2,100 ¹
2. India	692
3. Brazil	351
4. Ghana	309 ²
5. U. of So. Africa	253
6. Morocco	188
7. Belgian Congo	184
8. United States	154
9. Japan	98
10. Egypt	86

¹ 1955. ² Exports.

PETROLEUM, CRUDE (millions of metric tons, 1958)

1. United States	331.2
2. Venezuela	139.2
3. U.S.S.R.	112.8
4. Kuwait	70.8
5. Saudi Arabia	49.2
6. Iran	39.6
7. Iraq	36.5
8. Canada	22.8
9. Indonesia	15.6
10. Mexico	13.2

PIG IRON & FERRO ALLOYS (millions of metric tons, 1958)

1. United States	56.4 ¹
2. U.S.S.R.	39.6 ²
3. West Germany	19.8 ³
4. United Kingdom	13.2
5. France	12.0
6. Japan	7.7
7. Belgium	5.5
8. China	5.1 ⁴
9. Poland	3.8
10. Czechoslovakia	3.7

¹ Excluding electric furnace production. ² Pig iron only. ³ Including Saar. ⁴ 1956.

SILVER (metric tons, 1957)

1. Mexico	1,466.5
2. United States	1,204.3
3. Canada	882.2
4. U.S.S.R.	800.0 ¹

5. Peru	772.8
6. Australia	489.6
7. West Germany	267.8
8. Bolivia	228.9 ²
9. Japan	203.0
10. Belgian Congo	95.0

¹ Estimate. ² 1956.

TIN (thousands of metric tons, 1958)

1. Malaya	39.1
2. Indonesia	23.5
3. Bolivia	18.0
4. Belgian Congo	11.3
5. China	10.0 ¹
6. Thailand	7.8
7. Australia	2.1 ¹
8. U. of So. Africa	1.5 ¹
9. Burma	1.0 ¹
10. Nigeria	0.9 ¹

¹ Estimate.

URANIUM

World production data are generally unavailable, but U. S. output of uranium oxide was estimated at 10,-

000 tons in 1957 as compared with 6,000 tons in 1956. A member of the AEC estimated the known world reserves of uranium concentrates at 25,000,000 tons in Dec., 1957. (In the U. S., an average of 5 lb. of uranium oxide is extracted from each ton of ore.) U. S. reserves of high-grade uranium were estimated at 200,000 tons in 1957; of lower grade, about 6,000,000 tons. The world's most important deposits of uranium are believed to be located in the Belgian Congo; in the Northwest Territories and elsewhere in Canada; in the Colorado plateau area of Colorado, New Mexico, Arizona, and Utah; and in Alaska. Deposits have also been found or reported in Australia, Bolivia, Brazil, Bulgaria, Burma, Ceylon, Chile, China (in Manchuria), Czechoslovakia, Eng-

land, Ethiopia, Finland, France, Germany, Greece, Greenland, Hungary, India, Indonesia, Iran, Japan, Madagascar, Mexico, Mozambique, Nigeria, Norway, Panamá, Philippines, Portugal, Rumania, Sardinia, South Africa, Spain, Sweden, Switzerland, U.S.S.R., and Yugoslavia.

ZINC (thousands of metric tons, 1958)

1. United States	771.6 ¹
2. U.S.S.R.	351.0 ²
3. Canada	229.2
4. Mexico	224.4 ²
5. Belgium	214.8 ¹
6. West Germany	191.8 ¹
7. France	180.7 ¹
8. Poland	163.2
9. Japan	140.4 ¹
10. Australia	116.4

¹ Including secondary zinc. ² 1956.
³ Zinc content of ores.

Agriculture

BARLEY (thousands of metric tons, 1957)

1. China	19,760 ¹
2. U.S.S.R.	n.d.
3. United States	9,486
4. Canada	4,790
5. France	3,677
6. Turkey	3,600
7. United Kingdom	2,997
8. India	2,788
9. Denmark	2,547
10. West Germany	2,504

¹ Estimate.

BUTTER (thousands of metric tons, 1958)

1. United States	628.8
2. U.S.S.R.	621.0 ¹
3. France	330.0 ¹
4. West Germany	358.8
5. New Zealand	218.4 ²
6. Australia	175.2 ²
7. Denmark	157.2
8. East Germany	157.2
9. Canada	152.4
10. Netherlands	91.2

¹ 1957. ² Year ending June 30, 1958.

CATTLE (number in millions, various dates)

1. India	158.7 ¹
2. United States	96.8 ²
3. U.S.S.R.	70.4 ²
4. Brazil	66.7 ²
5. China	45.3 ¹
6. Argentina	44.2 ²
7. Pakistan	31.1 ²

8. France	17.7 ²
9. Australia	17.3 ²
10. Colombia	13.4 ²

¹ 1955-56. ² 1959. ³ 1956-57.

CHEESE (thousands of metric tons, 1958 factory production)

1. United States	639.6
2. France	390.0 ¹
3. Italy	329.0 ¹
4. Netherlands	173.6
5. West Germany	144.0
6. U.S.S.R.	136.2 ²
7. Argentina	120.0
8. Denmark	106.8
9. New Zealand	98.4
10. United Kingdom	97.2

¹ 1957. ² 1956.

COTTON GINNED (thousands of metric tons, 1957)

1. United States	2,387
2. U.S.S.R.	1,485
3. China	1,409
4. India	845
5. Mexico	472
6. Egypt	405
7. Brazil	383
8. Pakistan	296
9. Argentina	150
10. Turkey	135

FORESTS (millions of acres, latest data available, 1958)¹

1. U.S.S.R.	2,275
2. Brazil	975
3. Canada	835
4. United States	825

5. Fr. West Africa ..	420
6. Fr. Eq. Africa ..	340 ²
7. Indonesia	300
8. Belgian Congo	250
9. Sudan	225
10. China	210

¹ Of present or potential value.
² Including savannah.

HOGS (number in millions, 1957)

1. China	84.0 ¹
2. U.S.S.R.	57.2 ²
3. United States	51.7
4. Brazil	41.4
5. West Germany	14.4
6. Poland	12.3
7. East Germany	8.3
8. Mexico	8.2
9. France	7.8
10. Philippines	6.0

¹ 1955-56. ² 1959.

LAND, ARABLE (millions of acres, latest data available, 1958)¹

1. U.S.S.R.	585
2. United States	478
3. India	325 ²
4. China	250
5. Belgian Congo	120 ³
6. Canada	97
7. Argentina	75
8. Fr. Eq. Africa	74
9. Pakistan	60
10. France	52

¹ Actually planted in crops, plus temporary meadows and pastures.
² Including Kashmir. ³ Including inland water.

MEAT (thousands of metric tons, 1958)

1. United States ..	11,064
2. U.S.S.R.	3,360
3. West Germany ..	2,384
4. Brazil	1,843 ¹
5. France	1,717
6. United Kingdom ..	1,717
7. Argentina	1,523
8. Australia	1,307
9. Poland	1,036
10. Canada	829

¹ 1957.**MILK, Cow's (thousands of metric tons, 1958)**

1. United States ..	56,808
2. U.S.S.R.	45,000 ¹
3. France	20,600 ²
4. West Germany ..	17,868
5. United Kingdom ..	10,044
6. Canada	8,196
7. India	7,756 ³
8. Italy	6,592 ²
9. Australia	5,904
10. East Germany ..	5,652
11. New Zealand ..	5,412
12. Netherlands ..	5,376
13. Denmark	5,124
14. Argentina	4,801 ²
15. Czechoslovakia ..	3,768

¹ Estimate. ² 1957. ³ 1956.**OATS (thousands of metric tons, 1957)**

1. United States ..	18,991
2. U.S.S.R.	n.d.
3. Canada	5,870
4. France	2,579
5. Poland	2,541
6. West Germany ..	2,228
7. United Kingdom ..	2,179
8. East Germany ..	999
9. Argentina	995
10. Czechoslovakia ..	900

POTATOES (thousands of metric tons, 1957)

1. U.S.S.R.	90,000 ¹
2. Poland	35,104
3. West Germany ..	26,289
4. France	15,114
5. East Germany ..	14,529
6. United States ..	10,865
7. Czechoslovakia ..	9,635 ²

8. United Kingdom ..	5,782
9. Austria	4,034
10. Spain	3,954
11. Netherlands ..	3,741
12. Japan	3,396

¹ Estimate. ² 1956.**RICE (thousands of metric tons, 1957)**

1. China	81,769
2. India	37,828
3. Japan	14,328
4. Pakistan	12,935
5. Indonesia	11,611
6. Burma	5,828
7. Thailand	5,724
8. Brazil	3,988
9. Philippines	3,181
10. Vietnam	3,192

RUBBER (thousands of metric tons, 1958)

1. United States ..	1,072 ¹
2. Malaya-Singapore ..	674
3. Indonesia	610
4. U.S.S.R.	n.d.
5. Thailand	140
6. Canada	137 ¹
7. Cambodia-Viet nam	104
8. Ceylon	102
9. East Germany ..	84
10. Liberia	43

¹ Synthetic only.**SHEEP (number in millions, 1957)**

1. Australia	149.8
2. U.S.S.R.	129.9
3. China	53.4 ¹
4. Argentina	45.7
5. New Zealand	42.4
6. India	39.2
7. U. of So. Africa ..	37.5 ¹
8. United States ..	32.6 ²
9. Turkey	28.0
10. United Kingdom ..	24.8
11. Uruguay	23.3 ¹
12. Brazil	18.9
13. Peru	15.2

¹ 1956. ² 1959.**SUGAR (thousands of metric tons, 1957)**

1. Cuba	5,672
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2. U.S.S.R.	4,881
3. Brazil	2,714
4. United States ..	2,322
5. India	2,066
6. West Germany ..	1,568
7. France	1,538
8. Australia	1,295
9. Poland	1,137
10. Mexico	1,086
11. Philippines	1,031
12. Hawaii	984
13. Taiwan (Formosa) ..	939
14. Puerto Rico	898
15. Czechoslovakia ..	861

WHEAT (thousands of metric tons, 1957)

1. U.S.S.R.	n.d.
2. United States ..	25,776
3. China	23,725
4. France	11,020
5. Canada	10,165
6. India	9,214
7. Turkey	8,450 ¹
8. Italy	8,449
9. Argentina	5,300
10. Germany	5,102
11. Spain	4,391 ¹
12. Rumania	4,095
13. Pakistan	3,656

¹ Including spelt.**WOOL (thousands of metric tons, greasy basis, 1957)**

1. Australia	648
2. U.S.S.R.	271
3. New Zealand	225
4. Argentina	186
5. U. of So. Africa ..	133
6. United States	132
7. China	n.d.
8. Uruguay	91
9. United Kingdom ..	51
10. Turkey	40
11. Spain	37
12. India	34
13. Brazil	29
14. France	25
15. Chile	20

¹ Estimated. Combined production of U.S.S.R., China, and East European satellites estimated at 375,000 metric tons.**Industry, Trade, Communications****AIRLINES (thousands of passenger-kilometers, monthly average, 1958)**

1. United States ..	4,224
2. United Kingdom ..	344
3. France	343
4. U.S.S.R.	n.d.
5. Canada	269
6. Brazil	190 ¹
7. Australia	172 ¹

8. Netherlands	166
9. Mexico	146 ¹
10. Belgium	100

¹ 1957.**ALUMINUM (thousands of metric tons, 1958)**

1. United States ..	1,696.8 ¹
2. U.S.S.R.	535.0 ²

3. Canada	505.2
4. West Germany ..	238.6
5. France	209.8
6. United Kingdom ..	127.7
7. Norway	121.6
8. Japan	107.4
9. Austria	74.3
10. Italy	64.1

¹ Including secondary aluminum ² 1956. ³ 1957.

ELECTRICITY (millions of kwh., monthly average, 1958)

1. United States	60,334
2. U.S.S.R.	19,400
3. United Kingdom	8,209
4. Canada	8,062
5. West Germany	7,851 ¹
6. Japan	6,690
7. France	5,150
8. Italy	3,692
9. East Germany	2,906
10. Sweden	2,535
11. Norway	2,265
12. Poland	1,995

¹ Not including Saar.**EMPLOYMENT INDEX** (non-agricultural, 1958; 1953 = 100)¹

1. Yugoslavia	140
2. Japan	135
3. West Germany	124
4. Austria	119
5. Philippines	117
6. Poland	116
7. Canada	114
8. Luxembourg	114
9. U. of So. Africa	113
10. Hawaii	113

¹ Data on U.S.S.R. and satellites not available.**EXPORT INDEX** (1958; 1953 = 100)¹

1. Japan	240
2. Yugoslavia	237 ²
3. West Germany	195
4. Fr. Eq. Africa	179
5. Mexico	178 ²
6. Austria	177
7. Italy	163
8. Chile	160 ³
9. Greece	150
10. Netherlands	149

¹ Volume of exports after eliminating price change effects; principal nations only, not including U.S.S.R. and satellites. ² Effects of price changes not eliminated. ³ Estimate.**INDUSTRIAL PRODUCTION INDEX** (1958; 1953 = 100)

1. Pakistan	215
2. Yugoslavia	188
3. Japan	175
4. Greece	161

5. U.S.S.R.	155 ¹
6. Czechoslovakia	153
7. France	153
8. West Germany	152
9. Austria	150
10. China (Taiwan)	149
11. Mexico	146
12. Italy	141

¹ 1957.**MERCHANT FLEETS** (millions of gross tons, 1957)

1. United States	25.9 ¹
2. United Kingdom	19.9
3. Norway	8.5
4. Liberia	7.5 ²
5. Italy	4.5
6. Japan	4.4
7. Netherlands	4.3
8. Panama	4.1
9. France	4.0
10. West Germany	3.6
11. Sweden	3.0
12. U.S.S.R.	2.7

¹ Including Great Lakes shipping. ² Mostly vessels of other nations, flying under "flag of convenience," practically tax-free.**MOTOR VEHICLES** (production in thousands, 1958)¹

1. United States	5,135
2. West Germany	1,495
3. United Kingdom	1,364
4. France	1,128
5. U.S.S.R.	511
6. Italy	404
7. Canada	355
8. Japan	188
9. Australia	109 ²
10. Sweden	71 ²

¹ Passenger car production greatly exceeds commercial vehicle production in all nations listed except U.S.S.R. (122,400 passenger cars, 388,800 other) and Japan (50,400 and 137,280). ² 1957.**RAILWAYS** (millions of metric freight tons carried, monthly average, 1958)

1. United States	166.6
2. U.S.S.R.	114.3 ¹
3. West Germany	22.9
4. Poland	20.8
5. United Kingdom	20.5

¹ Estimate.

6. East Germany	18.9
7. France	17.7
8. Czechoslovakia	14.5
9. Japan	13.3
10. Canada	13.1

¹ 1956.**RETAIL TRADE INDEX** (1958; 1953 = 100)¹

1. Argentina	223
2. Yugoslavia	210
3. Japan	190 ²
4. Rumania	183
5. Mexico	168
6. Poland	156
7. Austria	153
8. Hungary	150
9. Netherlands	148
10. Australia	146 ³

¹ Internal commerce, principal nations only; data on U.S.S.R. unavailable. ² Department stores only. ³ Year ending June 30, 1958.**STEEL, CRUDE** (millions of metric tons, 1958)

1. United States	76.8
2. U.S.S.R.	55.2
3. West Germany	26.4 ¹
4. United Kingdom	20.4
5. France	14.4
6. Japan	12.0
7. Italy	6.2
8. Belgium	6.0
9. Poland	5.6
10. Czechoslovakia	5.5
11. China	4.5 ²
12. Canada	4.0
13. Chile	3.8 ³

¹ Including Saar. ² 1956. ³ 1957.**TELEPHONES** (number per 100 population, 1957)

1. United States	35.5
2. Sweden	31.1
3. Canada	27.6
4. New Zealand	25.6
5. Switzerland	25.5
6. Denmark	20.5
7. Australia	18.5
8. Norway	17.8
9. Iceland	17.4
10. United Kingdom	14.0

Human and Military Resources**BIRTH RATE, HIGHEST ANNUAL** (per 1,000 population, 1957)

1. Costa Rica	54.3
2. El Salvador	46.4
3. Malaya	46.2
4. Mexico	44.5
5. Brazil	43.0 ¹

6. China (Taiwan)	41.7
7. Dominican Republic	41.4
8. Canada	27.7
9. U. of So. Africa	25.7
10. Israel	26.4

¹ Estimate.**DEATH RATE, LOWEST ANNUAL** (per 1,000 population, 1958)

1. Iran	4.3
2. Israel	5.9
3. Syria	5.9
4. Peru	6.8
5. Puerto Rico	7.0

6. Greece	7.1	5. France	565	2. U.S.S.R.	213
7. Japan	7.4	6. Yugoslavia	555	3. United Kingdom	101
8. Netherlands	7.5	7. Spain	460	4. France	30
9. China (Taiwan)	7.6	8. Turkey	425	5. Spain	23
10. U.S.S.R.	7.7 ¹	9. North Korea	400 ³	6. Argentina	20
		10. India	400	7. Sweden	19

¹ Estimate.**ARMIES (estimated personnel in thousands, 1957-58)**

1. China	3,000 ¹
2. U.S.S.R.	2,300
3. United States	900 ²
4. South Korea	700

¹ Communist China; Formosan forces estimated at 300,000. ² June 1958. ³ Not including about 350,000 Chinese.

NAVIES (number of warships, 1957)¹

1. United States	574
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¹ Dec. 1957, not including submarines, frigates, and escort craft; estimated number of submarines on that date: U.S.S.R., 500; U.S., 205; United Kingdom, 54.

Value of Exports and Imports

(in millions of U. S. dollars)

Sources: *Statistical Yearbook*, United Nations, and *Monthly Bulletin of Statistics*, June 1959, United Nations.

Country	Exports ¹	Imports ¹	Country	Exports ¹	Imports ¹
Afghanistan	\$ 40.1 ²	\$ 25.3 ²	Ireland	\$ 366.0	\$ 556.0
Albania	23.0 ²	37.0 ²	Israel	144.0	434.0
Argentina	994.0	1,233.0	Italy	2,536.0	3,169.0
Australia	1,654.0	1,792.0	Japan	2,876.0	3,033.0
Austria	918.0	1,074.0	Jordan	15.5 ³	85.4 ³
Belgium-Luxemburg	3,046.0	3,129.0	Korea, South	21.5 ³	431.8 ³
Bolivia	96.0	84.1	Laos	1.1 ³	41.7 ³
Brazil	1,243.0	1,353.0	Lebanon	32.0	222.0
Bulgaria	339.0 ²	248.0 ²	Liberia	44.5 ²	26.8 ²
Burma	191.0	204.0	Malaya	1,217.0	1,338.0
Cambodia	51.1 ³	41.7 ³	Mexico	722.0	1,129.0
Canada	5,080.0	5,351.0	Morocco	332.0	393.0
Ceylon	359.0	361.0	Netherlands	3,218.0	3,625.0
Chile	458.0	441.0	New Zealand	699.0	796.0
China—mainland	1,005.3 ⁴	1,010.5 ⁴	Nicaragua	64.3 ³	80.9 ³
China—Taiwan (Formosa)	156.0	226.0	Norway	743.0	1,309.0
Colombia	453.0	367.0	Pakistan	298.0	397.0
Costa Rica	97.0	100.0	Panamá	22.0	86.0
Cuba	808.0 ³	773.0 ³	Paraguay	32.9 ³	27.4 ³
Czechoslovakia	1,356.0 ³	1,385.0 ³	Peru	290.0	334.0
Denmark	1,266.0	1,345.0	Philippines	509.0	550.0
Dominican Republic	135.0	131.0	Poland	982.0 ³	1,251.0 ³
Ecuador	98.0 ³	88.0	Portugal	288.0	480.0
Egypt	493.0 ³	524.0 ³	Rumania	395.0 ²	352.0 ²
Eritrea and Ethiopia	60.9 ²	63.2 ²	El Salvador	116.0	108.0
Finland	775.0	729.0	Spain	480.0	849.0
France	5,118.0	5,604.0	Sweden	2,088.0	2,367.0
Germany (East)	1,811.0 ³	1,615.0 ³	Switzerland	1,539.0	1,706.0
Germany (West)	8,807.0	7,361.0	Syria	132.0	191.0
Ghana	263.0	237.0	Thailand	365.9 ³	404.1 ³
Greece	232.0	565.0	Tunisia	153.0	154.0
Guatemala	103.0	150.0	Turkey	264.0	315.0
Haiti	39.0	35.0 ³	Union of South Africa	1,091.0	1,557.0
Honduras	72.0	67.0 ³	United Kingdom	8,880.0	10,107.0
Hungary	72.6 ²	58.6 ²	United States	17,697.0	12,913.0
Iceland	66.0	86.0	Uruguay	128.0 ³	227.0 ³
India	1,217.0	1,643.0	U.S.S.R.	4,381.0 ³	3,938.0 ³
Indonesia	755.0	518.0	Venezuela	2,322.0	1,428.0
Iran	111.4 ⁵	335.0 ³	Vietnam	55.0	232.0
Iraq	567.0	307.0	Yugoslavia	441.0	686.0

¹ Figures are for 1958 unless otherwise noted. ² 1956. ³ 1957. ⁴ Estimated. ⁵ 1954.

World Education Statistics

Source: Statistical Yearbook, United Nations, 1958.

NOTE: where figures are not available, the abbreviation n.a. is used; where the illiteracy rate is very slight the abbreviation negl. is used.

Country	Illiteracy rate, % ¹	Number of schools	Colleges and universities	Total students ²	Country	Illiteracy rate, % ¹	Number of schools	Colleges and universities	Total students ²
Afghanistan....	n.a.	698 ³	4 ³	113,489 ³	Korea, South...	n.a.	6,926 ²⁰	82 ^{20,9}	4,648,032 ²⁰
Albania.....	high	2,769 ³	4 ³	201,442 ³	Kuwait.....	n.a.	47 ³	2 ^{3,9}	14,704 ³
Australia....	negl. ⁴	10,696 ³	9 ³	1,777,523 ³	Laos.....	63.2 ¹⁶	1,271 ⁵	1 ^{5,9}	80,437 ⁵
Austria.....	negl.	7,470 ²⁰	14 ²⁰	1,114,615 ²⁰	Lebanon....	n.a.	n.a.	6 ³	251,503 ³
Belgium.....	3.1 ⁶	16,600 ⁶	19 ⁵	1,774,956 ⁵	Liberia.....	95.0 ¹⁷	515 ¹⁷	3 ¹⁷	46,301 ¹⁷
Bulgaria.....	24.27 ¹⁸	n.a.	n.a.	1,219,157 ⁵	Luxemburg....	negl.	67 ³	1 ³	40,656 ³
Burma.....	42.9 ³	11,507 ³	7 ⁹	1,511,921 ³	Malaya.....	61.7 ⁶	4,913 ³	2 ³	820,827 ³
Cambodia....	n.a.	3,184 ⁵	4 ⁵	428,007 ⁵	Morocco.....	n.a.	n.a.	6 ³	657,117 ²⁰
Canada.....	negl.	31,127 ³	120 ^{3,9}	3,256,894 ³	Nepal.....	n.a.	1,323 ³	14 ³	73,400 ³
Ceylon.....	42.0 ⁸	6,990 ⁵	3 ⁵	172,368 ⁵	Netherlands...	negl.	15,240 ¹⁷	11 ²⁰	2,662,842 ⁵
China, mainland	n.a.	512,510 ¹⁷	194 ¹⁷	58,159,423 ¹⁷	New Zealand..	negl.	2,775	6 ⁵	486,637 ⁵
China, Taiwan (Formosa)....	n.a.	2,395 ²⁰	16 ²⁰	1,835,771 ²⁰	Norway.....	negl.	7,607 ³	8 ³	530,846 ³
Czechoslovakia	1.7 ⁵	n.a.	28 ⁵	2,426,410 ⁵	Pakistan.....	86.8 ¹⁷	48,341 ²⁰	163 ^{20,9}	5,403,391 ²⁰
Denmark.....	negl.	3,891 ¹⁷	12 ¹⁷	728,733 ¹⁷	Philippines...	37.8 ¹¹	28,971 ¹⁷	n.a.	4,393,198 ¹⁷
Egypt.....	74.5 ⁶	8,771 ²⁰	21 ²⁰	2,661,954 ²⁰	Poland.....	n.a.	33,250 ²⁰	57 ³	5,011,866 ²⁰
Ethiopia & Eritrea.....	70.0 ¹¹	608 ⁵	2 ¹¹	140,939 ⁵	Portugal.....	41.7 ¹⁸	17,495 ⁵	13 ³	1,010,313 ³
Finland.....	negl.	7,453 ¹⁷	11 ¹⁷	810,568 ¹⁷	Puerto Rico...	25.6 ¹⁸	2,392 ³	4 ³	676,654 ³
France.....	3.3 ³	89,762 ³	151 ³	8,479,429 ³	Rumania.....	23.1 ¹⁷	23,419 ²⁰	92 ¹⁶	2,463,966 ²⁰
Germany.....	negl.	63,726 ²⁰	106 ²⁰	11,247,367 ²⁰	Saudi Arabia..	n.a.	610 ²⁰	1 ²⁰	74,758 ²⁰
Ghana.....	n.a.	5,022 ²⁰	2 ²⁰	617,472 ²⁰	Spain.....	14.2 ³	10,540 ³	25 ³	3,305,345 ³
Greece.....	23.5 ¹²	11,351 ³	8 ⁵	1,179,568 ⁵	Sweden.....	negl.	8,916 ⁵	15 ⁵	1,084,761 ⁵
Hungary.....	5.9 ^{13,14}	9,238 ⁵	31 ²⁰	1,632,495 ²⁰	Switzerland...	negl.	(²¹)	9 ²⁰	708,855 ⁵
Iceland.....	negl.	253 ³	1 ³	26,985 ¹⁷	Syria.....	n.a.	3,323 ²⁰	1 ²⁰	449,086 ²⁰
India.....	82.1 ¹²	318,153 ¹⁷	1,129 ¹⁷	32,586,601 ¹⁷	Thailand.....	46.3 ⁶	21,700 ³	5 ⁵	3,709,947 ²⁰
Indonesia.....	47.0 ³	37,054 ¹⁷	960 ^{17,9}	8,111,617 ¹⁷	Tunisia.....	n.a.	1,886 ⁵	5 ²⁰	351,187 ²⁰
Iran.....	high	7,041 ³	13 ⁹	918,650 ³	Turkey.....	65.4 ¹⁸	18,750 ¹¹	13 ¹¹	1,880,640 ¹¹
Iraq.....	n.a.	2,201 ⁵	15 ¹⁷	466,402 ⁵	Union of South Africa	70.9 ³	9,997 ¹⁰	9 ¹⁰	742,079 ¹⁰
Ireland.....	negl.	5,626 ¹⁷	2 ¹⁷	588,646 ¹⁷	United Kg'dm	negl.	38,033 ⁵	26 ⁵	8,449,000 ⁵
Israel.....	6.9 ¹⁵	3,297 ¹⁷	6 ¹⁷	399,432 ¹⁷	United States..	negl.	123,896 ^{5,19}	1,681 ²⁰	43,577,328 ¹⁷
Italy.....	10.0 ³	65,306 ¹⁷	34 ¹⁷	7,529,313 ¹⁷	U.S.S.R.....	10.0 ¹⁵	230,620 ¹⁷	765 ¹⁷	33,775,588 ¹⁷
Japan.....	negl.	52,515 ²⁰	534 ^{5,9}	22,412,174 ²⁰	Vietnam.....	n.a.	3,925 ⁵	18 ²⁰	732,460 ⁵
Jordan.....	50.0 ¹⁶	1,205 ⁵	5 ^{17,9}	253,257 ⁵	Yemen.....	n.a.	2,177 ⁵	1 ^{5,9}	94,697 ⁵
					Yugoslavia....	25.0 ¹⁰	18,008 ¹⁷	63 ¹⁷	2,393,935 ¹⁷

¹ For 10 years and older. ² Includes colleges and universities. ³ 1954. ⁴ For European population. ⁵ 1956. ⁶ 1947. ⁷ For 15 years and older. ⁸ 1946. ⁹ Including normal schools. ¹⁰ 1953. ¹¹ 1952. ¹² 1951. ¹³ For 6 years and older. ¹⁴ 1949. ¹⁵ 1948. ¹⁶ Estimate. ¹⁷ 1955. ¹⁸ 1950. ¹⁹ Public schools only. ²⁰ 1957. ²¹ Incomplete.

Latin American Education

Source: Statistical Yearbook, United Nations, 1958.

Country	Illiteracy rate, %	No. of schools	Universities	Total students	Country	Illiteracy rate, %	No. of schools	Universities	Total students
Argentina.....	8	19,519 ⁶	6 ¹	3,183,521 ⁶	Haiti.....	90	1,507 ¹¹	13 ¹²	234,143 ¹¹
Bolivia.....	69 ²	884 ¹²	5 ³	209,070 ¹²	Honduras....	65 ²	2,529 ¹⁰	1 ⁶	158,517 ¹⁰
Brazil ¹⁴	51 ²	80,417 ¹¹	11 ³	5,618,760 ¹¹	Mexico.....	38 ²	30,685 ¹¹	135 ¹¹	3,752,113 ¹¹
Chile.....	24 ⁵	7,402 ⁶	5 ³	1,192,552 ⁶	Nicaragua....	60	3,593 ⁷	1 ⁷	127,318 ⁷
Colombia.....	37 ¹	18,679 ¹²	22 ⁶	1,520,645 ¹²	Panamá.....	28 ^{2,8}	1,233 ⁶	1 ⁶	162,149 ⁶
Costa Rica...	21 ²	1,623 ¹⁰	2 ¹⁰	199,768 ¹⁰	Paraguay.....	60	1,993 ¹¹	1 ⁶	291,225 ¹¹
Cuba.....	25	9,360 ¹¹	4 ¹¹	850,803 ¹¹	Peru.....	50	12,938 ¹¹	7 ¹¹	1,273,910 ¹¹
Dominican Republic	57 ¹²	4,406 ¹²	1 ⁶	467,896 ¹²	El Salvador...	58 ²	2,524 ¹²	4 ¹²	257,639 ¹²
Ecuador.....	44 ²	4,621 ¹¹	7 ¹¹	519,917 ¹¹	Uruguay.....	35	1,942 ⁷	1 ⁷	309,598 ¹¹
Guatemala....	72 ²	3,897 ¹⁰	1 ⁶	297,926 ¹⁰	Venezuela....	60 ³	7,346 ¹¹	5 ¹¹	709,092 ¹¹

¹ 1951. ² 1950. ³ 1952. ⁴ Instruction given in Portuguese only. ⁵ 1943. ⁶ 1954. ⁷ 1953. ⁸ Excluding tribal Indians. ⁹ 1949. ¹⁰ 1957. ¹¹ 1955. ¹² 1956.

Area and Population by Country

Country	Area, sq. mi.	Population	Year ¹	Country	Area, sq. mi.	Population	Year ¹
Afghanistan	250,966	13,000,000	1957E	Lebanon	4,015	1,525,000	1957E
Albania	11,100	1,462,000	1957E	Liberia	43,000	1,250,000	1957E
Argentina	1,084,359	20,256,000	1958E	Libya	679,358	1,136,000	1957E
Australia	2,974,581	9,846,000	1958E	Liechtenstein	61	15,000	1957E
Austria	32,374	6,997,000	1957E	Lithuania ³	31,200	2,700,000	1956E
Belgium	11,779	8,989,000	1957E	Luxemburg	999	15,000	1957E
Bhutan	19,305	640,000	1957E	Maldiv Islands	115	82,000	1957E
Bolivia	424,162	3,311,000	1958E	Mexico	760,373	32,348,000	1958E
Brazil	3,287,195	62,725,000	1958E	Monaco	0.61	21,000	1957E
Bulgaria	42,796	7,667,000	1957E	Mongolian People's Rep.	614,350	1,025,000	1957E
Burma	261,757	20,255,000	1958E	Morocco	174,555	10,115,000	1957E
Cambodia	67,568	9,165,000	1957E	Nepal	54,510	8,787,000	1957E
Canada	3,619,616	17,048,000	1958E	Netherlands	12,482	11,173,000	1958E
Ceylon	25,332	9,361,000	1958E	New Zealand	103,740	2,282,000	1958E
Chile	286,396	7,298,000	1958E	Nicaragua	57,143	1,333,000	1957E
China ²	3,911,209	649,506,000	1957E	Norway	125,064	3,526,000	1958E
Colombia	439,519	13,522,000	1958E	Pakistan	364,737	85,635,000	1958E
Costa Rica	19,695	1,072,000	1958E	Panamá	28,753	995,000	1958E
Cuba	44,217	6,466,000	1958E	Paraguay	157,047	1,638,000	1957E
Czechoslovakia	49,354	13,469,000	1958E	Peru	482,258	10,213,000	1958E
Denmark	16,577	4,500,000	1957E	Philippines	114,830	23,122,000	1958E
Dominican Republic	18,703	2,791,000	1958E	Poland	120,442	28,300,000	1957E
Ecuador	105,743	4,007,000	1958E	Portugal	35,358	8,980,000	1958E
Egypt	386,100	24,026,000	1957E	Rumania	91,654	17,829,000	1957E
Estonia ³	17,400	1,100,000	1956E	Saar	991	996,000	1955E
Ethiopia ⁴	457,142	20,000,000	1957E	Salvador, El	8,260	2,434,000	1958E
Finland	130,119	4,376,000	1958E	San Marino	38	14,000	1957E
France	212,736	44,500,000	1958E	Saudi Arabia	617,760	6,036,000	1957E
Germany (east) ⁵	41,380	16,401,000	1957E	Spain	194,945	29,662,000	1958E
Germany (west) ⁵	94,719	52,150,000	1958E	Sudan	967,500	10,700,000	1957E
Ghana	91,843	4,836,000	1958E	Sweden	173,564	7,415,000	1958E
Greece ⁷	51,182	8,096,000	1957E	Switzerland	15,941	5,185,000	1958E
Guatemala	42,042	3,451,000	1957E	Syria	70,014	4,082,000	1957E
Haiti	10,748	3,384,000	1957E	Thailand	198,270	21,474,000	1958E
Honduras	43,277	1,828,000	1958E	Tibet	469,143	1,273,969	1953C
Hungary	35,905	9,857,000	1958E	Tunisia	48,332	3,850,000	1958E
Iceland	39,768	165,000	1957E	Turkey	296,185	25,932,000	1958E
India ⁸	1,269,640	397,540,000	1958E	Union of South Africa ¹²	472,733	14,418,000	1958E
Indonesia ⁹	575,893	86,900,000	1958E	U.S.S.R.	8,602,700	200,200,000	1956E
Iran	636,293	19,723,000	1958E	United Kingdom	93,599	51,681,000	1958E
Iraq	171,599 ¹⁰	6,538,000	1957E	United States	2,974,726	174,231,000	1958E
Ireland	26,601	2,853,000	1958E	Uruguay	68,369	2,679,000	1957E
Israel	7,984	1,997,000	1958E	Vatican City State	(¹¹)	1,000	1957E
Italy	116,316	48,735,000	1958E	Venezuela	352,143	6,320,000 ¹⁴	1958E
Japan	142,801	91,760,000	1958E	Vietnam (north)	63,360	14,500,000	1957E
Jordan ¹¹	37,264	1,578,000	1958E	Vietnam (south)	65,726	12,300,000	1957E
Korea	85,266	28,600,000	1955E	Yemen	75,290	4,500,000	1957E
Laos	91,500	1,655,000	1957E	Yugoslavia	98,700	18,397,000	1958E
Latvia ³	24,600	2,000,000	1956E				

¹ E—Estimated; C—Census. ² Including Formosa (Taiwan), Manchuria and Tibet. ³ Actually Russian S.S.R. but still recognized by U.S. as independent country. ⁴ Including Eritrea. ⁵ Excluding East Berlin. ⁶ Excluding West Berlin. ⁷ Including Dodecanese. ⁸ Including Kashmir. ⁹ Excluding Netherlands New Guinea. ¹⁰ Including desert area of 80,553 sq. mi. ¹¹ Including Arab Palestine. ¹² Excluding South-West Africa. ¹³ 108.7 acres. ¹⁴ Excluding tribal Indians.

America's Tallest Buildings

City	Building	Stories	Height, ft.	City	Building	Stories	Height, ft.
New York	Empire State	102	1,250	New York	500 Fifth Avenue	50	700
New York	Chrysler	77	1,046	New York	Metropolitan Life	50	700
New York	60 Wall Tower	66	950	New York	Chanin	56	583
New York	Bk. of Manhattan	71	925	New York	Lincoln	53	673
New York	R. C. A.	70	850	New York	Irving Trust	50	654
New York	Chase-Manhattan	50	810	New York	General Electric	50	641
New York	Woolworth	60	792	New York	Waldorf-Astoria	47	625
New York	City Bank-Farmers Trust	57	741	New York	10 E. 40th St.	48	621
New York	Union Carbide	52	720	New York	New York Life	40	617
Cleveland	Terminal Tower	52	708	New York	Singer	47	612

Largest Cities of the World

(Exact rating of the cities of the world according to size is impossible because of the diversity of the years for which census or estimated population figures have been issued. Therefore, the rating shown in this table must be considered only approximate.)

City and country	Population	Year*	City and country	Population	Year*
1. Tokyo, Japan.....	9,100,539	1959E	11. Rio de Janeiro, Brazil.....	3,030,619	1958E
2. London (Greater), England.....	8,222,340	1958E	12. Paris, France.....	2,850,189	1954C
3. New York, N. Y., U.S.A.....	7,795,471	1957C†	13. Bombay, India.....	2,839,270	1951C
4. Shanghai, China.....	6,204,417	1953C	14. Leningrad, U.S.S.R.....	2,819,000	1956E
5. Moscow, U.S.S.R.....	4,847,000	1956E	15. Peking, China.....	2,768,417	1953C
6. Mexico City, Mexico.....	4,250,000	1958E	16. Tientsin, China.....	2,693,831	1953C
7. Buenos Aires, Argentina.....	3,733,000	1957E	17. Cairo, Egypt.....	2,673,800	1956E
8. Chicago, Ill., U.S.A.....	3,620,962	1950C	18. Calcutta, India.....	2,548,677	1951C
9. Berlin, Germany.....	3,338,561	1957E	19. Osaka, Japan.....	2,547,316	1955C
10. São Paulo, Brazil.....	3,315,553	1958E	20. Los Angeles, Calif., U.S.A.....	2,397,000	1958E

Other Large Foreign Cities (over 600,000)

City and country	Population	Year*	City and country	Population	Year*
Ahmedabad, India.....	788,333	1951C	Lódz, Poland.....	687,300	1957E
Alexandria, Egypt.....	1,261,100	1956E	Madrid, Spain.....	1,879,037	1956E
Amsterdam, Netherlands.....	871,188	1957E	Madras, India.....	1,416,056	1951C
Antwerp, Belgium.....	841,686	1957E	Manchester, England.....	703,082	1951C
Baku, U.S.S.R.....	901,000	1956E	Manila, Philippines.....	1,183,000	1958E
Bandung, Indonesia.....	870,346	1956E	Marseilles, France.....	661,492	1954C
Bangalore, India.....	778,977	1951C	Melbourne, Australia.....	1,595,300	1956E
Bangkok, Thailand.....	1,173,549	1958E	Milan, Italy.....	1,355,410	1956E
Barcelona, Spain.....	1,431,753	1956E	Montevideo, Uruguay.....	810,969	1954E
Birmingham, England.....	1,112,685	1951C	Montreal, Canada.....	1,109,439	1956C
Bogota, Colombia.....	1,180,120	1958E	Mukden, Manchuria.....	1,790,000	1952E
Brussels, Belgium.....	1,385,831	1957E	Munich, Germany.....	1,016,530	1958E
Bucharest, Rumania.....	1,236,906	1956C	Nagoya, Japan.....	1,336,780	1955C
Budapest, Hungary.....	1,781,085	1954E	Nanking, China.....	1,020,000	1952E
Canton, China.....	1,210,000	1952E	Naples, Italy.....	1,096,755	1956E
Capetown, Union of South Africa.....	687,900	1956E	Novosibirsk, U.S.S.R.....	731,000	1956E
Caracas, Venezuela.....	800,000	1957E	Odessa, U.S.S.R.....	607,000	1956E
Casablanca, Morocco.....	682,388	1952C	Port Arthur, Kwantung.....	1,010,000	1952E
Chelyabinsk, U.S.S.R.....	612,000	1956E	Prague, Czechoslovakia.....	978,634	1957E
Chungking, China.....	2,000,000	1952E	Pusan, Korea.....	1,049,363	1955C
Cologne, Germany.....	749,492	1958E	Rangoon, Burma.....	737,079	1953C
Copenhagen, Denmark.....	950,700	1957E	Recife, Brazil.....	733,870	1958E
Delhi, India.....	914,973	1951C	Rome, Italy.....	1,829,406	1956E
Dortmund, Germany.....	629,515	1958E	Rotterdam, Netherlands.....	722,718	1957E
Düsseldorf, Germany.....	679,223	1958E	Saigon-Cholon, Vietnam.....	1,794,360	1956E
Essen, Germany.....	719,764	1958E	Santiago, Chile.....	1,348,283	1952C
Frankfurt am Main, Germany.....	643,111	1958E	Seoul, Korea.....	1,574,868	1955C
Genoa, Italy.....	727,012	1956E	Sian, China.....	628,499	1948C
Glasgow, Scotland.....	1,089,767	1951C	Sofia, Bulgaria.....	725,756	1956C
Gorki, U.S.S.R.....	876,000	1956E	Stalino, U.S.S.R.....	625,000	1956E
Hamburg, Germany.....	1,796,713	1958E	Stockholm, Sweden.....	799,000	1958E
Harbin, Manchuria.....	1,000,000	1952E	Stuttgart, Germany.....	617,814	1958E
Havana, Cuba.....	785,455	1953C	Surabaya, Indonesia.....	980,905	1956E
Hyderabad, India.....	1,085,722	1951C	Sverdlovsk, U.S.S.R.....	707,000	1956E
Istanbul, Turkey.....	1,214,616	1955C	Sydney, Australia.....	1,935,880	1956E
Jakarta, Indonesia.....	1,927,785	1956E	Taipei, Formosa.....	777,467	1957E
Johannesburg, U. of So. Af.....	1,006,500	1956E	Tashkent, U.S.S.R.....	778,000	1956E
Kanpur, India.....	705,383	1951C	Tblisi, U.S.S.R.....	635,000	1956E
Karachi, Pakistan.....	1,500,000	1957E	Teheran, Iran.....	1,513,164	1956E
Kharkov, U.S.S.R.....	877,000	1956E	Toronto, Canada.....	667,706	1956C
Kiev, U.S.S.R.....	991,000	1956E	Tsingtao, China.....	850,308	1948E
Kobe, Japan.....	979,305	1950C	Turin, Italy.....	853,179	1956E
Kuibyshev, U.S.S.R.....	760,000	1956E	Victoria, Hong Kong.....	1,000,000	1957E
Kyoto, Japan.....	1,204,084	1955C	Vienna, Austria.....	1,766,102	1951C
Lahore, Pakistan.....	849,476	1951C	Warsaw, Poland.....	1,068,000	1957E
Lima, Peru.....	1,135,131	1957E	Wuhan, China.....	1,090,000	1952E
Lisbon, Portugal.....	783,226	1950C	Yokohama, Japan.....	1,143,687	1955C
Liverpool, England.....	788,659	1951C			

* E—Estimated; C—Census. † Special census.

WORLD HISTORY



A GUIDE TO MAIN HISTORICAL, POLITICAL, ECONOMIC, GEOGRAPHIC AND SOCIAL FACTS

Prepared by the Editorial Staff of the
INFORMATION PLEASE ALMANAC

In consultation with the Editorial Staff of
ENCYCLOPAEDIA BRITANNICA

For late changes, see Headline Stories in front of Almanac.

Afghanistan (Kingdom)

Area: 250,966 square miles.*
Population (est. 1953): 13,000,000*
(Pushtu, 60.5%; Tajik, 30.7%; Uzbek, 5%;
Mongolian and others, 3.8%).
Density per square mile: 51.8.
Ruler: Mohammed Zahir Shah.
Prime Minister: Ali Mohammed Daud.
Principal cities (est. 1953): Kabul, 310,-
000 (capital); Kandahar, 195,000 (trading
center); Herat, 150,000 (farming center).
Monetary unit: Afghani.
Languages: Pushtu (official), Persian.
Religion: Mohammedan (Sunni, 90%;
Shiah, 10%).

* Unofficial estimate (no census ever taken).

STATUS IN THE WORLD TODAY

Afghanistan has adopted a policy of neutrality or neutralism in the current East-West struggle largely as a result of the following factors: its history as an object for many years of Anglo-Russian imperialist rivalry; its landlocked position; its 1,250-mile frontier with the U.S.S.R.; and its border troubles with Pakistan, the country's best and least expensive trade route with the rest of the world. Like other underdeveloped Asian nations, it has been using both American and Soviet assistance in its economic development program aimed at building up some of the power, transport, irrigation, and industrial sources it so badly needs. Latest estimates indicate that Afghanistan has received the equivalent of \$161 million in loans and credits from the U.S.S.R., including \$25 million for military aid, as against \$59 million in grants and loans from the U. S.

One of the nation's principal problems is transportation over extremely difficult

terrain. There are few roads and usable waterways. The exit route through Iran is the least useful and most expensive; that through the Soviet Union depends upon political accommodation. Twice in recent years—in 1950 and 1955—Pakistan has blocked its neighbor's transit to the sea because of a conflict over the border region of "Pushtunistan," the home of the Pathans. But in 1958 the two countries signed a Transit Agreement, and a U. S. loan to Pakistan will enable that nation to complete railroad lines to the Afghan border and the latter to connect with them. The U.S.S.R. took advantage of the 1950 dispute to sign a far-reaching trade agreement with Afghanistan and since then has intensified its efforts at penetration of the country.

HISTORY AND GOVERNMENT. Wedged between Pakistan, Iran, and the U.S.S.R. in southwestern Asia without outlet to the sea, Afghanistan did not become an independent state until 1747. Previously, it had been either a cluster of small states under nominal Arab rule, part of Mongol or Mogul empires, or dismembered among India, Persia, and the Uzbeks.

In 1880, Great Britain recognized Abdur Rahman Khan as Emir and gave him an annual subsidy of more than \$500,000 to delegate management of his foreign relations to Britain.

On Aug. 8, 1919, a treaty was signed making Afghanistan free and independent of all British control. The country maintained strict neutrality in World War II, and was admitted to the U. N. in 1946.

Under the Constitution, promulgated in 1932, authority is vested in the sovereign and Parliament, which has a Senate of fifty

members, who are named for life by the sovereign, and a National Assembly of 171 elected members. Executive power is exercised by the sovereign and Cabinet headed by the Prime Minister.

ECONOMIC CONDITIONS. Only a fifth of the soil is under cultivation, the greater part of the country being mountainous and rocky. Farming is confined to the fertile valleys and plains, sometimes with the aid of irrigation. Two crops a year are usually grown. Important ones include fruits and nuts, castor beans, cereals, madder, tobacco, cotton and vegetables. Wheat is the staple food. The fat-tailed indigenous sheep is a principal source of meat and wearing apparel.

Industry is still in a primary stage of development. Manufactures include cotton and woolen textiles and clothing, soap, leather, matches, beet sugar and furniture.

Among the leading exports are karakul skins (mostly to the U.S.), cotton, wool, rugs, carpets, spices and dried fruits. Most of the trade normally is carried on through Pakistan; wool and cotton are exported to the U.S.S.R. in return for consumers' goods.

Afghanistan has no railways or navigable streams. Camels and pack horses are still used by the natives.

Both mineral and forest resources are largely unexploited. There are deposits of beryllium, chromite, coal, copper, gold, iron ore, lapis lazuli, oil, silver and sulfur.

NATURAL FEATURES. Afghanistan, approximately the size of Texas, is split east to west by the Hindu Kush range of the Himalayas, rising in the east to heights of 24,000 feet. Except in the southwest, most of the country is covered by high snow-capped mountains and deep valleys.

Albania (People's Republic)

(Republika Popullëre e Shqipërisë)

Area: 11,100 square miles.

Population (1957): 1,462,000 (Albanian 99.8%; others, .2%).

Density per square mile: 131.7.

Chairman of Presidium: Hadji Leshi.

Premier: Mehmet Shehu

Principal cities (est. 1955): Tirana, 108,183 (capital); (est. 1945) Scutari, 33,825 (northern trading center); Koritsa, 24,035 (farming center).

Monetary unit: Lek.

Language: Albanian.

Religions (est. 1953): Moslem, 65%; Greek Orthodox, 23%; Roman Catholic, 11%; others, 1%.

STATUS IN THE WORLD TODAY

Albania, a backward and mountainous country, is the Kremlin's sole and isolated outpost on the Mediterranean, accessible

only by a circuitous sea route since the defection of Yugoslavia from the Cominform. While it is reported to shelter submarine pens for the Soviet navy, its few port facilities are generally inadequate for modern shipping, and its principal role is that of a gadfly pestering Marshal Tito's dissident yet Communist country. Soviet agents can slip across the common frontier in either direction, and propaganda attacks can be mounted against Yugoslavia in the name of the largely illiterate Albanian mountain folk. Albania played a similar role in the late 1940's, when Greek Communist rebels were engaged in civil war against the Athens government. Until the 1948 break between Tito and Moscow, the Albanian Labor (Communist) party was directly subordinate to the Yugoslav Communist party. It is now controlled by the Russians, and the country is the smallest and least significant of the East European satellites.

HISTORY AND GOVERNMENT. After the fall of the Roman Empire, Albania became part of the Byzantine Empire and was successively invaded by Goths, Serbs, and Bulgarians. From 1014 to 1204 it was again under Byzantine rule. An alliance of Albanian chieftains (1444-66) under Skanderbeg failed to halt the advance of the Turks, and the country remained under at least nominal Turkish rule for more than four centuries, until it proclaimed its independence on Nov. 28, 1912.

During World War I Albania was variously occupied by Italian, Greek, French, Serb and Austro-Bulgarian forces. On Aug. 2, 1920, Italy recognized Albanian independence and evacuated the country. In 1927, after concluding pacts which placed Albania in Italy's sphere of influence, Zogu, President of the new Albanian republic since 1925, proclaimed himself King Zog 1.

During the Greco-Italian war of 1940-41, the Greek armies pushed the Italians back from the Albanian border and occupied a large part of southern Albania. When Germany attacked Greece and Yugoslavia in April, 1941, however, the Greeks withdrew quickly, and the Axis occupation of Albania was complete.

Albania was free of the Axis yoke by the end of 1944, and a leftist provisional government under Colonel General Enver Hoxha was established.

Under its 1945 Constitution, Albania has a typical Soviet government. Supreme power is vested in the popularly elected National Assembly, to which the Cabinet, headed by the Premier, is responsible.

ECONOMIC CONDITIONS. Albania is still a primitive country where each family

tries to provide most of its own needs. Nearly the whole population is engaged in combined farming and stock-raising. Only a small portion of the central part is fit for tilling. Corn is the chief crop. Others are wheat, tobacco, oats, barley, rye, spelt, olives, and citrus fruit. Factories produce food products, cement and textiles; a large dam and power station was completed near Tirana in 1950.

Albania's postwar trade has been limited for the most part to the Soviet bloc. Important exports include crude oil, copper and chrome ore.

Mineral wealth, thought to be considerable, is relatively unexploited. The principal mineral is petroleum. Others include asphalt, bitumen, bauxite, chromite, copper, lignite, and pyrites.

NATURAL FEATURES. Albania is a mountainous state, largely over 3,000 ft. above sea level, with a narrow marshy coastal plain crossed by several rivers. The interior mountain plateaus and basins contain the centers of population.

Arabia

POLITICAL DIVISIONS OF ARABIA

Name	Area (sq. mi.)	Population
Aden colony (British)	75	152,000 ¹
Aden protectorate ²	112,000	650,000 ¹
Bahrain Islands (Sultanate)	231	125,000 ¹
Kuwait (Sheikdom)	8,000	206,177 ³
Oman and Masqat (Sultanate)	82,000	550,000 ⁴
Qatar (Sheikdom)	8,500	30,000 ⁴
Saudi Arabia (Kingdom)	617,760	6,036,000 ¹
Trucial Coast (Sheikdoms)	32,278	80,000 ¹
Yemen (Kingdom)	75,290	4,500,000 ⁵

¹ 1956 estimated. ² British protectorate. ³ 1957 census. ⁴ 1957 estimated. ⁵ 1953 estimated

The Arabian peninsula is at the south-west extremity of Asia. Its rich oil deposits and proximity to Palestine gave it special importance after World War II. Once a political unit, today it consists of the kingdoms of Saudi Arabia and Yemen, the British colony of Aden and six political entities in special treaty relationship with Great Britain.

The peninsula, with an area more than three times that of Texas, and an extreme length of 1,400 miles, is generally a plateau sloping gently eastward from a mountain range that averages 5,000 feet in elevation and runs along its entire west side within ten or fifteen miles of the Red Sea. The range reaches a maximum of 12,336 feet in Yemen to the southwest. Arabia has no rivers and no forests and is principally a desert dotted with many oases.

Mohammed united all Arabs in the seventh century A.D., and his followers, led by the caliphs, founded a great empire with its capital at Medina. Later, the caliphate capital was transferred to Damascus and then Baghdad, but Arabia retained its importance because of the holy cities of Mecca and Medina. In the sixteenth and seventeenth centuries, the Turks established at least nominal rule over much of Arabia, and in the middle of the eighteenth century it was divided into separate principalities.

Through agreements with local rulers, the British extended their rule over the southern and eastern coasts in the nineteenth century. At the same time, the Wahhabis, a religious sect advocating strict adherence to Mohammed's teachings, gained control over the greater part of central and eastern Arabia, and their work was the beginning of the present Saudi Arabia.

Aden. See page 662.

Bahrain Islands (Sheikdom)

These islands form an archipelago off Arabia's east coast and are an independent state ruled by Sheik Sir Salman bin Hamad al Khalifah. The islands are the center of the Persian Gulf pearl fisheries and the site of an airport on the London-Australia route. The concession for exploitation of petroleum deposits, discovered in 1932, is held in equal proportion by the Standard Oil Co. of California and the Texas Co. Output in 1957 was 1,596,000 metric tons. Agriculture is of some importance. Most of the trade of the Saudi Arabian provinces of Nejd and Hasa pass through Bahrain. The capital is Manama (population 1957: 53,000).

Kuwait (Sheikdom)

Kuwait, on the northwestern shore of the Persian Gulf, is an independent state ruled by Sheik Abdullah as-Salim as-Subah. British protection, first exercised in 1898, has several times prevented it from being absorbed by Saudi Arabia. The territory surrounding Al Kuwait, its port, is largely desert; its trade consists of exchanging Arab goods from the interior for textiles, rice, sugar, and other necessities. Kuwait's petroleum reserves, estimated at 60 billion barrels, are under concession to the Kuwait Oil Co. Ltd. (owned jointly by Gulf Oil Corp. and British Petroleum Co. Ltd.), which pays one-half its profits to the Sheik. Production, which began only in 1945, totaled 60,612,000 metric tons in 1957. Production is concentrated at the Burgan field, from which petroleum is piped to the new port of Ahmadi for shipment.

South of Kuwait on the Persian Gulf is the Saudi Arabian-Kuwait neutral zone,

which under the Treaty of Uqair (1922) belongs in undivided one-half interest to Kuwait and Saudi Arabia. It consists of about 2,000 sq. mi. of uninhabited desert. Oil was discovered in 1953 by American Independent Oil Co. Production totalled 11,724,585 barrels in 1956.

Oman and Masqat (Sultanate)

Occupying the mountainous southeastern part of the peninsula, Oman is nominally an independent state under the rule of Sultan Sayyid Sa'id bin Talmur. It has been under British protection since the nineteenth century. The state is best known for its date cultivation, and its riding camels are considered the best in the world. Trade is mainly to and from India. The capital is Masqat (population 1954: 5,500).

Qatar (Sheikhdom)

Qatar occupies the whole of the Qatar peninsula in the Persian Gulf. It is ruled, under British protection, by Sheik Ali bin Abdullah al-Thani. The whole area is claimed by Saudi Arabia. Oil deposits are being exploited by a subsidiary of the Iraq Petroleum Co.; output in 1957 was about 6,612,000 metric tons.

Saudi Arabia. See page 754.

Trucial Coast (Sheikhdoms)

This area, extending along part of the Gulf of Oman and the southern coast of the Persian Gulf, is ruled by seven semi-independent sheiks. Treaties signed with Britain in 1853 and 1892 provided that the sheiks should not cede or sell any part of their land to any other power.

Yemen. See page 773.

Argentina (Republic)

(República Argentina)

Area: 1,084,359 square miles.

Population (est. 1958): 20,256,000 (approximately 97% of European descent, chiefly Spanish and Italian; 3% Indian and other).

Density per square mile: 18.7.

President: Arturo Frondizi.

Principal cities (est. 1957): Buenos Aires, 3,733,000 (capital and chief port); (est. 1956) Rosario, 550,000 (flour milling); Córdoba, 454,800 (northwest farming center); Avellaneda, 346,600 (industrial suburb of Buenos Aires); Lanús, 286,400 (suburb of Buenos Aires); La Plata, 249,600 (seaport, meat packing).

Monetary unit: Peso.

Languages: Spanish (official), Italian.

Religions (census 1947): Roman Catholic, 92.7%; Protestant, 1.9%; Jewish, 1.6%; others and unknown, 3.8%.

STATUS IN THE WORLD TODAY

Argentina's problems since the overthrow of Juan Perón and the inauguration of a constitutional President in May, 1958, have been primarily economic, and are due largely to the mistaken economic policies of the recent dictator. They are threefold: labor, decapitalization, and a strongly unfavorable balance of payments.

Since Perón, for political reasons, had made the labor movement his movement and given it many concessions at the expense of other economic units in the nation, its attitude toward the new government of Dr. Arturo Frondizi at first was in doubt. One of his first moves was to decree a general wage increase for all wage and salary earners. Even so, there have been a number of conflicts since then between labor and the government, and resultant strikes. There is still considerable Peronista strength in the country.

The capital equipment of much of Argentina's economy, particularly in the field of transportation, is out of date. Agriculture, upon which Argentina depends for most of its foreign exchange earnings, is underequipped with implements and machinery. Much of the equipment of the manufacturing industry is inadequate.

Increasing exports and decreasing non-capital imports are two ways of reducing the country's unfavorable balance of trade, which recently has been about \$300 million a year. But increased domestic consumption and a decline in the nation's output has reduced the agricultural products available for export. The Frondizi government hopes to remedy this by expanding agricultural production for export through increased local production of agricultural machinery, distribution of modern technical information, and a shift from highly competitive products such as wheat to corn and meat. The regime also hopes to reduce imports of petroleum, the largest single import item. Here it is somewhat handicapped by a nationalistic opposition to exploitation of Argentina's admittedly rich oil reserves by foreign companies.

HISTORY. Discovered in 1516 by Juan Díaz de Solís, Argentina developed slowly under Spanish colonial rule. Buenos Aires was settled in 1580; the cattle industry was thriving as early as 1600.

Invading British forces were expelled in 1806-07, and when Napoleon conquered Spain, the Argentinians set up their own government in the name of the Spanish King in 1810. On July 9, 1816, independence was formally declared.

President Hipólito Irigoyen (1916-22) refused to abandon Argentinian neutrality in World War I. Re-elected in 1928, Iri-

goyen, a radical, was ousted two years later by a conservative revolution led by General José Uriburu. The latter's successor, General Agustín Justo (1932-38) followed a moderate policy and undertook a large public works program.

Argentina proclaimed neutrality at the outbreak of World War II, but in general co-operated in hemispheric defense programs. In the closing months of the war, the nation declared war on the Axis (March 27, 1945) and signed the Act of Chapultepec the following April 4. Diplomatic recognition and admission to the U. N. followed. Juan D. Perón, then an army colonel, emerged as strongman and won the 1946 presidential elections. Perón was re-elected in 1951.

Long-smouldering opposition, fanned by worsening relations with the Catholic Church, finally resulted in Perón's overthrow in Sept. 1955 in a coup led by the armed forces. Perón fled to exile and his party as well as Congress was dissolved.

GOVERNMENT. Argentina is a federal union of 22 provinces and the federal district. Under the Constitution of 1853 (restored by decree on May 1, 1956), the President and Vice President are elected every 6 years by electors who are chosen by direct vote. The President appoints his Cabinet. The Vice President presides over the Senate but has no other powers. Neither is eligible for immediate re-election. The Congress has two houses—a 46-member Senate elected by the provincial legislatures for 6-year terms and a Chamber of Deputies popularly elected for 6-year terms. One third of each house is renewed every two years.

Each province has its own constitution, elected governor, legislature and judiciary, but the President may in a crisis take over the local government.

ECONOMIC CONDITIONS.

Agriculture. A farming and stock-raising nation, Argentina devotes some 40% of its area to pasture and 10% to cultivation. Cotton, sugar cane and fruits are important, and Argentina is the world's largest producer of yerba maté (Paraguay tea), the national beverage. The 1956 wine production (preliminary) was 354,300,000 gallons (1951-55 average: 412,000,000 gallons).

Cattle raising predominates on the pampas, especially in Buenos Aires province. Sheep raising is more important in Patagonia. In 1957 there were 44,203,425 cattle, 45,737,860 sheep, 3,487,122 pigs, 5,482,453 horses. Wool production in 1957-58 was 85,406 metric tons, greasy basis.

Manufacturing. Industrial expansion was accelerated during World War II by the shortage of imports, but industry is still closely allied to agriculture. The principal industry is meat packing, fol-

lowed by flour milling, textiles, sugar refining, dairy products, quebracho extraction and wine. Jeep production was started in 1956 and a steel plant is under construction at San Nicolas.

Trade. Leading exports in 1957 were cereals and linseed (21%), meat (26%), wheat (16%), wool (12%), and hides (6%); leading imports, machinery and vehicles (24%), fuel and lubricants (24%), and iron and steel and manufactures (12%). Leading customers were the United Kingdom (24%), the U. S. (12%), Germany (10%), the Netherlands (10%), and Italy (8%); leading suppliers, the U. S. (23%), Brazil (9%), Venezuela (8%), the United Kingdom (8%), and West Germany (7%).

NATURAL FEATURES AND RESOURCES. Second in South America to Brazil in size and population, Argentina is a plain, rising from the Atlantic to the Chilean border and the towering Andes peaks, including Aconcagua, 22,835 feet, the highest peak in the world outside Asia. The northern area is the swampy and partly wooded Gran Chaco. South of that are the rolling, fertile pampas, rich for agriculture and grazing, and supporting most of Argentina's population. Next southward is Patagonia, a region of cool, arid steppes with some wooded and fertile sections. The eastern part of Tierra del Fuego, the island southern tip of South America, belongs to Argentina.

The three great rivers which make up the Plata system—the Paraná, Paraguay and Uruguay—are important commercial arteries in northern Argentina. Rosario and Santa Fé, 260 and 360 miles respectively above Buenos Aires on the Paraná, are accessible to ocean vessels.

Minerals. Argentina must import most of nearly every mineral it uses. Oil is produced in Patagonia (1957: 4,860,000 metric tons). The government announced discovery of uranium deposits in Feb., 1947. Imports of fuels and lubricants totaled 9,993,900 metric tons in 1956.

Forests. The Gran Chaco area is the world's chief source of quebracho extract. Total exports of this tanning agent obtained from quebracho logs in 1954 were 153,000 metric tons, part of which was re-exported from Paraguay.

Austria (Republic) (Republik Österreich)

Area: 32,374 square miles.

Population (est. 1957): 6,997,000 (practically all Austrian).

Density per square mile: 216.1.

President: Dr. Adolf Schärf.

Chancellor: Julius Raab.

Principal cities (census 1951): Vienna,

1,616,125 (capital, industrial center); Graz, 226,453 (industrial center); Linz, 184,685 (industrial center); Salzburg, 102,927 (tourist center); Innsbruck, 95,055 (tourist center).

Monetary unit: Schilling.

Language: German.

Religions (census 1951): Roman Catholic, 89%; Protestant, 6%; others, 5%.

STATUS IN THE WORLD TODAY

Although theoretically neutral in the cold war, Austria, with its democratic institutions, is oriented toward Free Europe. Its foreign policy, dictated by its central European location, aims to avoid accusations of favoritism for either East or West. But public opinion appears to be pro-Free Europe and pro-American, and there is much resentment against the severe economic concessions exacted by the U.S.S.R. as the price of its withdrawal in 1955.

Stripped of her industrial areas after World War I, with no outlet to the sea, with a soft currency, and a population less than that of metropolitan New York, Austria has long been dependent upon outside aid. Her economic recovery in recent years has been one of the most dramatic success stories of the post-World-War II era. Much of this may be attributed to Marshall Plan aid.

HISTORY AND GOVERNMENT. The history of Austria before World War I was closely identified with that of the Austro-Hungarian Empire and its ruling house, the Hapsburgs. The monarchy originated in a margravate founded by Charlemagne in the late eighth century. In 1252 Ottokar, King of Bohemia, gained possession of the Austrian territories, only to lose them to Rudolf of Hapsburg in 1276. In the next three centuries the Hapsburg power steadily grew until Charles V (1519-1556) ruled a vast area of Europe. In 1806, during the Napoleonic Wars, Emperor Francis I relinquished the crown of the Holy Roman Empire.

Austria emerged from the Congress of Vienna in 1815 as the dominant power on the Continent. The *Ausgleich* of 1867 provided for a dual sovereignty embracing the empire of Austria and the kingdom of Hungary under Francis Joseph I, who ruled until 1916.

In 1919 the Austro-Hungarian Empire was dissolved by the treaties of St. Germain and Trianon. Austria was left in political chaos and economic ruin. In 1934 Chancellor Engelbert Dollfuss established a dictatorship, only to be assassinated by Nazi conspirators on July 25, 1934. He was succeeded by Kurt von Schuschnigg, whose futile effort to maintain Austria's independence ended with a bloodless Nazi

occupation on March 12, 1938. The next day, *Anschluss* (union) with Germany was proclaimed. After World War II the United States and Great Britain removed Austria from the ranks of enemy states by declaring the Austrians a "liberated" people. She finally regained her independence on May 14, 1955, by a state treaty ending seventeen years of occupation, but only after long and difficult negotiations with the Russians.

The federal republic of Austria is composed of nine provinces, including Vienna. The President is elected by the people directly for a term of six years. The bicameral legislature consists of the *Bundesrat*, with fifty members chosen by the provincial assemblies, and the *Nationalrat*, with 165 members popularly elected for 4 years. The Chancellor and his Cabinet are responsible for governmental administration. **ECONOMIC CONDITIONS.** Agriculture employs approximately one-third of the population but the country is heavily dependent on imported foodstuffs. Mixed farming predominates. Rye and wheat are the leading cereals. Stock raising and dairy farming both in the Alpine pastures and the lowlands of the east are of importance.

Austria is primarily an industrial country, with 41% of the population engaged in industry. Most important are the metallurgical, engineering, textile and food processing industries. Medium- and small-sized firms with specialized lines predominate, although a few large enterprises exist. Nationalized plants employ about one-fifth of the industrial labor force. The major steel and aluminum plants are in Upper Austria.

Leading exports in 1956 were iron and steel and other metals (23%), timber (21%) and machinery, electrical equipment and vehicles (13%); leading imports, machinery, electrical equipment and vehicles (20%), food (15%) and mineral fuels (14%). Leading customers in 1957 were Western Germany (24%), Italy (18%), other EPU Countries (18%), and the sterling area (8%); leading suppliers, Western Germany (36%), the U. S. and Canada (13%), Italy (8%); other EPU countries (17%), and the United Kingdom (4%).

NATURAL FEATURES AND RESOURCES. Austria covers an area about equal to that of Scotland and includes much of the mountainous territory of the eastern Alps (about 92.3 per cent of the country). The country contains many snowfields, glaciers, and snow-capped peaks. The principal river is the Danube. Forests and woodlands cover about 40%.

Austria possesses valuable mineral resources. In Styria lies one of the largest European deposits of iron ore. Copper is

mined in Salzburg, Tyrol, and Lower Austria, and lead and zinc in Carinthia. Large supplies of coal and coke must be imported, but extensive water power resources are available for exploitation. Petroleum fields are in the Zistersdorf and Mühlberg areas, both in eastern Austria.

Belgium (Kingdom)

(Royaume de Belgique— Koninkrijk België)

Area: 11,779 square miles.*

Population (est. Dec. 31, 1957): 8,989,000 (Walloon, Flemish).

Density per square mile: 763.1.

Sovereign: Baudouin I.

Premier: Gaston Eyskens.

Principal cities (est. 1957, including certain suburbs): Brussels, 1,385,831 (capital); Antwerp, 841,686 (port and commercial center); Liège, 604,861 (iron and steel); Charleroi, 469,383 (industrial center); Ghent, 453,234 (textiles).

Monetary unit: Belgian franc.

Languages (est. 1954): Flemish, 50%; French, 34%; Flemish and French, 15%; German, 1%.

Religion: Predominantly Roman Catholic.

* Including areas taken over from Germany in 1949.

STATUS IN THE WORLD TODAY

Little Belgium, a staunch supporter of the Free World, probably makes a proportional contribution to the North Atlantic community second to none. As a small nation, it has always been one of the most enthusiastic participants in international attempts to bring order into the world, first in the League of Nations and then in the United Nations. It has also supported attempts to create supranational economic divisions, starting with the Benelux Customs Union which it established with the Netherlands and Luxembourg. Its economy is relatively stable, although it can supply only two-thirds of its food needs, has no natural resource except coal—which has become increasingly difficult to sell—and must export 40 per cent of its production. In competing with other nations for foreign trade, it is beginning to feel the effect of obsolescent equipment in some textile and chemical plants.

Riots early in 1959 against Europeans by Abako Congolese seeking independence focused attention on the Belgian Congo, where the Belgians have sought to rule with enlightenment. The Congo has been promised eventual independence; voting rights were granted to all last year (until then, even white settlers could not vote); education is to be improved and all grades of civil service are to be opened

to Africans. The area is rich in minerals, particularly copper, and is probably one of the Free World's largest sources of uranium.

HISTORY AND GOVERNMENT. Perhaps the earliest mention of the Belgians in history was in 57–50 B.C., when they were conquered by Julius Caesar. In the Middle Ages the Belgian towns became wealthy and virtually autonomous as great textile centers. Belgium became part of Burgundy in 1385 and, later, part of the Spanish domains of Charles V. By the Treaty of Utrecht, in 1713 Belgium went to Austria, though retaining its autonomy, and from 1792 to 1815 it held a similar status under France.

Belgium is a constitutional monarchy consisting of nine provinces. Its bicameral legislature has a Senate, with members elected for four years, partly directly and partly indirectly, and a 212-member Chamber of Deputies directly elected for four years by proportional representation. There is universal suffrage, and those who do not vote are fined. Belgium joined the North Atlantic Alliance in April, 1949.

After the fall of Napoleon the Congress of Vienna (1815) joined the French Catholic Walloons of Belgium with the Germanic Protestant Flemings of Holland (United Provinces) to form the Kingdom of the Netherlands. The Belgians rose in revolt in 1830 and declared their independence. The Treaty of London (1831) guaranteed Belgian independence.

The invasion of Belgium by Germany in 1914 triggered the explosion of World War I. The Treaty of Versailles (1919) gave the strategic areas of Eupen, Malmédy, and Moresnet to Belgium. On February 17, 1934, King Albert was killed while mountain climbing and was succeeded by his son, Leopold III. Leopold III formally abdicated on July 16, 1951, and his son became King Baudouin.

Belgium is one of the most highly industrialized nations in Europe due in part to its coal reserves. Its economic advance has been notable. In spring, 1958, the \$260 million Brussels World's Fair commenced a six-months run to portray the artifacts of today's technological revolution.

ECONOMIC CONDITIONS. Agriculture. About 60% of the total area of Belgium is under cultivation, and one-half the farmed area is devoted to forage crops.

Other crops are fodder beets, flax and fruit. The pastoral industry, especially dairy farming, flourishes. On Jan. 1, 1957, Belgium had 2,254,924 cattle, 1,276,437 hogs, 175,003 horses, and 37,540 sheep.

Manufacturing. Belgium is one of the most highly industrialized nations in Eu-

rope, largely because of vast, readily accessible coal reserves. Industry chiefly processes imported raw materials for re-export in semifinished or finished form. Of primary importance are iron and steel, nonferrous metals, fabricated metal products and textiles. Associated with iron and steel is a considerable engineering industry, shipbuilding in Antwerp, and machinery and railway stock in Brussels. The centuries-old textile industry produces linen (Courtrai); cotton (the southeast); and synthetic fibers. Antwerp, using the output of mines in the Congo and Angola, rivals Amsterdam in diamond cutting.

Chief customers in 1957 for Belgium-Luxembourg were the Netherlands (23%), France (11%), Western Germany (10%), the U. S. and Canada (10%), other EPU countries (14%), and Britain (6%). Leading sources of imports were Western Germany (16%), the Netherlands (14%), the U. S. and Canada (14%), France (12%), other EPU countries (9%), and Britain (8%). Chief exports were iron and steel and products (28%), thread and fabric (7%), coal, coke, and petroleum and products (6%), copper and products (5%), and precious stones and metals (5%).

NATURAL FEATURES AND RESOURCES. The northern third of Belgium is a plain extending eastward from the coast of the North Sea. North of the Sambre-Meuse Rivers is a low plateau, varying from 250 to more than 600 feet in height, and to the south lies the Ardennes plateau, rising to a maximum of about 2,300 feet. The shallowness of the North Sea off Belgium precludes the development of good harbors; some of the port advantages of Antwerp, on the Schelde River, are offset by the fact that the approaches to it are through Dutch territory.

The principal mineral is coal. The Ardennes coalfield, now nearly exhausted, extends southward into France. The Campine field lies in the northeast.

BELGIAN COLONIAL EMPIRE

Country	Area (sq. mi.)	Population
Belgian Congo (colony)	904,991	13,124,000*
Ruanda-Urundi (U. N. trust terr.)	20,742	4,568,000*

* 1957 estimated.

BELGIAN CONGO—Status: Colony.

Capital: Léopoldville (population Dec. 31, 1954: 299,806; Europeans, 16,887).

Governor General: Léo Pétillon.

Monetary unit: Congolese franc.

Foreign trade (1956) 53% to Belgium, 14% to the U. S.; imports, 35% from Belgium, 20% from the U. S. Chief exports: copper (40%), coffee (8%), cotton (7%), palm oil (5%), diamonds (5%).

Agricultural exports: coffee and cotton.

Mineral exports: copper, tin, cassiterite,

diamonds (mainly industrial), gold, cobalt, zinc, and uranium.

Forest exports: palm oil, palm kernels, rubber, gum copal.

The mineral-rich Belgian Congo is in central Africa, with a narrow outlet to the Atlantic through the northwestern tip of Portuguese Angola. King Leopold II of Belgium had backed exploration of the area by the English explorer, H. M. Stanley, and in 1885 had been recognized by the great powers as personal sovereign and proprietor of the Congo Free State, as it was then called. The area is now administered by a Governor General responsible to the Cabinet minister for the colonies. The Governor General has unrestricted executive and legislative powers, and the colony has no representative institutions of its own. During World War II it furnished war materials to the Allies.

RUANDA-URUNDI—Status: U. N. trust territory, united administratively with the Belgian Congo.

Capital: Usumbura.

Governor General: Léo Pétillon.

Principal products: tin, coffee, gold, cotton, hides.

Ruanda-Urundi, in east Africa, was assigned to Belgium as a mandate by the League of Nations at the end of World War I, before which it was a portion of German East Africa. It is administered under the direction of the Governor General of the Belgian Congo by a Vice Governor General. The area, placed under U. N. trusteeship in Dec. 1946, is largely mountainous, with livestock grazing the principal native activity.

Bhutan (Kingdom)

Area: 19,305 square miles.

Population (est. 1957): 640,000 (mostly Bhotiya).

Density per square mile: 33.6.

Ruler: Maharaja Jigme Dorji Wangchuk.

Capital: Punakha.

Monetary unit: Indian rupee.

Language: Tibetan dialect.

Religion: Buddhism.

HISTORY. Bhutan is a semi-independent state lying on the southeast slope of the Himalayas, bordered on the north and east by Tibet and on the south and west by the Republic of India. The area is said to have been invaded and settled by Tibetan troops in the 9th century A.D. After almost a century of conflict between the Bhutanese and the British in India, British troops invaded the country in 1865 and negotiated an agreement under which Britain undertook to pay an annual allowance to Bhutan on condition of good behavior. A treaty signed with India in Aug. 1949 increased this subsidy and placed Bhutan's foreign affairs under Indian control.

Until 1907, Bhutan's government was under the dual control of the clergy and laity, but the country is now ruled by a hereditary Maharaja.

The dominant people are the Bhotiyas, who are of Tibetan origin, speak a Tibetan dialect, and profess the same form of Buddhism as is prevalent in Tibet.

ECONOMIC CONDITIONS. The chief crops are rice, corn and millet; the fields, laid out on hillside terraces, are watered by an ingenious system of irrigation. Bhutan is famous for its small though sturdy mountain ponies. The chief industries are metal work, cloth weaving and fine basket and mat work. Trade is insignificant, and much of it is conducted by barter.

NATURAL FEATURES. The whole of Bhutan presents a succession of lofty and rugged mountains running generally from north to south and separated by deep valleys. Mountains in the north reach a height of 24,000 feet.

Bolivia (Republic) (República Boliviana)

Area: 424,162 square miles.

Population (est. 1958): 3,311,000 (1950: Indian 52.9%, mestizo 32%, white 14.8%, others .3%).

Density per square mile: 7.8.

President: Hernán Siles Zuñez.

Principal cities (census 1950): La Paz, 321,063 (de facto capital); Cochabamba, 80,795 (commercial center); Oruro, 62,975 (tin mines); Potosí, 45,758 (mining); Sucre, 40,128 (legal capital).

Monetary unit: Boliviano.

Language: Spanish.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

The wave of democracy which has swept over South America in recent years has enabled the National Revolutionary Movement to stay in power since 1952 despite strikes, attempts at revolution, and an almost desperate economic situation. It has maintained its position because of the social revolution it inaugurated by nationalizing the tin mines—minerals are the source of more than 90% of its foreign exchange; giving the Indians the right to vote; and distributing land among the landless farm workers who previously had had to work for the large landowners in return for small plots just big enough for their own sustenance. Virtually all Indians now have some land and are prospective recipients of more. And with extensive help from the U. S. Point Four program, the NRM government is giving them information on new and better methods of production and extending them credit.

While diversification of agriculture will

help offset the payments Bolivia must make to import much of its basic foodstuffs, the primary problem is still the country's dependence upon tin exports, which in turn depend upon the world price of that metal. A world surplus of tin, the re-establishment of a quota system for world tin production and the "dumping" of tin on the world market by the Soviet bloc at low prices have hurt Bolivia. And since miners have been frozen in their jobs, uneconomic mines have not been closed and workers have been given subsidies in the form of fixed prices at commissaries during inflation, the nationalized mines have been run at a deficit and the government has been forced to seek aid from the United States and the International Monetary Fund. One bright spot in an otherwise bleak economic picture has been the successful exploitation of petroleum deposits which has converted the country from a heavy importer of petroleum products to an exporter.

HISTORY. Famous since Spanish colonial days for its mineral wealth, modern Bolivia was once a part of the ancient Incan Empire. After the Spaniards had defeated the Incas during the first part of the 16th century, Bolivia was subjected to the Spanish Viceroyalty of Peru, and its predominantly Indian population was reduced to slavery. The country finally won its independence in 1825; the new republic was named after Simón Bolívar, South America's famed liberator.

Bolivia's political history since independence has been extremely stormy. Since 1825 it has had more than 60 revolutions, 70 Presidents and 11 Constitutions. No elected President has served out his term.

Harassed by internal strife, Bolivia lost great slices of territory to three neighbor nations. Several thousand square miles and its outlet to the Pacific were taken by Chile after a disastrous war in 1879-83. In 1903 a piece of Bolivia's Acre province, rich in rubber, was ceded to Brazil. And in 1938, after a war with Paraguay, Bolivia gave up claim to nearly 100,000 square miles of the Gran Chaco.

GOVERNMENT. Bolivia is a republic, electing by popular vote a President every four years, a 27-member Senate every six years, and a 110-member Chamber of Deputies every four years. The President appoints the members of his Cabinet. The Indian majority was virtually disfranchised until July, 1952, when the franchise was conferred on all those who had reached the age of 20, whether literate or illiterate.

ECONOMIC CONDITIONS. Production of such basic foodstuffs as wheat and rice is insufficient for domestic needs, and considerable quantities must be imported.

Cattle are raised in the more temperate regions of the east and south, sheep in the departments of La Paz and Cochabamba, and llamas, alpacas, and vicuñas, important sources of hides, wool and, meat, are raised on the plateaus by Indians. The furbearing chinchilla, a native of the colder plateau regions, is also raised in Bolivia.

Tin and other minerals comprise almost the whole of Bolivia's exports. Since the country is landlocked, foreign trade must pass through free ports in Chile and river ports on the Amazon.

Chief exports in 1957 were tin (63%), lead (9%), tungsten (7%), zinc (6%), and silver (5%). Leading customers in 1957 were the United Kingdom (59%) and the U. S. (35%); leading suppliers, the U. S. (46%), Argentina (15%), Germany (9%), and the United Kingdom (6%).

NATURAL FEATURES AND RESOURCES. Landlocked Bolivia is a low alluvial plain throughout 60 per cent of its area toward the east, drained by the Amazon and Plata river systems. The western part, enclosed by two chains of the Andes, is a great plateau—the Altiplano with an average altitude of 12,000 feet. More than 50 per cent of the population lives on the plateau, which also contains La Paz, the highest capital city in the world. Lake Titicaca, half the size of Lake Ontario, is one of the highest large lakes in the world, at an altitude of 12,507 feet. Islands in the lake hold ruins of the ancient Incan civilization.

Mining is the backbone of the economy. Tin, accounting normally for about 70% of Bolivian exports, is by far the most important mineral, most of it coming from Potosí and Oruro. During World War II, Bolivia was the world's largest tin producer.

Brazil (Republic)

(Estados Unidos do Brasil)

Area: 3,287,195 square miles.

Population (est. 1958): 62,725,000 (1950: white, 61.7%; mestizo, 26.5%; Negro, 11.0%; other, 0.8%).

Density per square mile: 19.1.

President: Juscelino Kubitschek de Oliveira.

Principal cities (est. 1958): São Paulo 3,315,553 (coffee and industrial center); Rio de Janeiro, 3,030,619 (capital, chief port); Recife (Pernambuco), 733,870 (seaport); Salvador (Baía), 551,525 (seaport); Porto Alegre, 532,624 (seaport); Belo Horizonte, 527,270 (mining); Fortaleza (Ceará), 300,000 (seaport).

Monetary unit: Cruzeiro.

Language: Portuguese.

Religion: Roman Catholic, 95%.

STATUS IN THE WORLD TODAY

Brazil's principal problem currently is economic, even though it is potentially one of the richest nations in the Western Hemisphere. After four centuries as an almost exclusively agricultural country, with only one export crop—coffee—it is now trying hard to industrialize itself. It is plagued by a constantly rising cost of living which has caused mounting discontent. One of its weaknesses is oil—it produces only one-fifth of its requirements through a state monopoly which does not permit participation of foreign or internal private capital. Consequently, the government seeks public funds abroad rather than private capital to develop this industry and for that reason has not met with any great success in obtaining foreign investments. It has also been loath to institute reforms which would curb inflation as a prerequisite to obtaining a loan from the International Monetary Fund to close the gap in the balance of payments. As a temporary measure, the United States has agreed to let Brazil postpone payments which are due on its debts. In the meantime, ultra-nationalists are blaming the United States for the high cost of living and are demanding nationalization of some American industries. These circles also make much of the argument that the United States gives far too little financial assistance to countries in this hemisphere in comparison with the amounts allotted to countries in Europe, Asia, and Africa. Brazil has a number of military agreements with the United States, including one for the use of an island as a tracking station for guided missiles.

HISTORY. Brazil, the only Latin American nation deriving its culture and language from Portugal, is the largest country in South America, covering nearly half the continent. In the world, it ranks after the U.S.S.R., China and Canada.

Brazil was discovered in 1500 by the Portuguese admiral, Pedro Alvares Cabral. Portugal began colonization in 1532 and Brazil became a royal colony in 1549.

During the Napoleonic wars, the Prince Regent of Portugal (later King John VI) fled his country in advance of the French armies, and set up his royal court at Rio de Janeiro in 1808. When John was drawn home by a revolution in 1820, the Brazilians rebelled at resuming colonial status and declared their independence in 1822 under Pedro, son of John VI. Pedro I abdicated in 1831 in favor of his five-year-old son, who became Emperor in 1840 as Pedro II.

Although a popular monarch, Pedro

II was forced to abdicate in 1889 following a military revolt, after which a republic was set up.

The President during World War I, Wenceslau Braz, co-operated with the Allies and declared war on Germany Oct. 26, 1917. Pres. Washington Luiz Pereira da Souza, 1926-30, had to cope with the world depression and was overthrown by a revolutionary group under Getúlio Vargas, who took over as provisional President.

GOVERNMENT. Under the Constitution of 1946, Brazil is a union of twenty states, five territories and one federal district. The President is popularly elected for a five-year term and may not succeed himself. The national Congress is composed of two houses—the Senate, whose members serve for eight-year terms, and the Chamber of Deputies, elected for four-year terms. Members of Congress are elected by equal, direct, compulsory, and secret suffrage under a system of proportional representation.

ECONOMIC CONDITIONS. *Agriculture.* Agriculture is a mainstay of Brazil's economy, but only 4 per cent of its area is under cultivation, the rest being grazing, forest, or non-productive land. Brazil leads the world in production of coffee and castor beans, and ranks second in cacao. Production and export of both coffee and cacao are government-controlled. Coffee production in the 1957-1958 season totaled 24,000,000 bags of 132 lbs. each.

Livestock is raised nearly everywhere, with the great centers in the central and northern states. On Dec. 31, 1956, there were 41,416,000 hogs, 18,867,000 sheep, and 66,695,000 cattle.

Trade. Leading exports in 1957 were coffee (61%), pine wood (5%), cacao (5%), iron ore (3%), and cotton (3%). Leading customers were the U. S. (47%), Argentina

(7%), Germany (6%), and Sweden (3%); leading suppliers, the U. S. (37%), Germany (9%), Venezuela (8%), Argentina (6%), and the Netherlands Antilles (4%).

Major imports include machinery, Argentine wheat, vehicles, and petroleum products.

NATURAL FEATURES AND RESOURCES.

Brazil covers about three-sevenths of South America, extends 2,965 miles north-south, 2,691 miles east-west, and borders every South American state except Chile and Ecuador. Its area would more than blanket that of the U. S.

More than a third of Brazil is drained by the Amazon and its more than 200 tributaries. The Amazon is navigable for ocean steamers to Iquitos, Peru, 2,300 miles upstream. Southern Brazil is drained by the Plata system—the Paraguay, Uruguay and Paraná Rivers. The most important stream entirely within Brazil is the São Francisco, navigable for a thousand miles but broken near its mouth by the 260-foot Paulo Afonso Falls, with estimated potential of 1,000,000 horsepower.

Mineral Resources. Brazil's vast mineral resources are among her least developed assets. The most important are coal (estimated reserves of 5,000,000,000 tons; estimated 1957 production, 2,116,000 metric tons) and iron ore (metal content 65%), found mainly in Minas Gerais (1957 output, 3,536,728 metric tons). Other important minerals are gold (1956), 122,234 troy oz.; manganese ore (1957), 798,067 tons; petroleum (1957), 10,106,000 barrels; diamonds; silver; quartz crystals; uranium.

Forests and Fisheries. The largest single forest commodities are timber, chiefly pine from the southern states, and the wax of the carnauba palm, used for insulation and phonograph records and produced commercially only in Brazil (exports 1957: 11,976 metric tons).

BRITISH COMMONWEALTH OF NATIONS

EUROPE

United Kingdom of Great Britain and Northern Ireland

Area: 93,895 square miles (excluding Channel Islands and Isle of Man).

Population (est. 1958): 51,680,000 (English, Scotch, Welsh, Irish).

Density per square mile: 550.3.

Ruler: Queen Elizabeth II.

Prime Minister: Harold Macmillan.

Principal cities (census 1951): London (Greater), 8,346,137 (capital); Birmingham, 1,112,340 (iron and steel); Glasgow,

1,089,555 (seaport, shipbuilding); Liverpool, 789,532 (seaport); Manchester, 703,175 (textiles); Sheffield, 512,334 (steel, cutlery); Leeds, 504,954 (clothing); Edinburgh, 466,770 (capital, Scotland).

Monetary unit: Pound sterling (£).

Languages: English, Welsh, Gaelic.

Religion: Church of England (established church); Church of Wales (disestablished); Church of Scotland (established church—Presbyterian); Church of Ireland (disestablished); Roman Catholic; Methodist; Congregational; Baptist; Jewish.

STATUS IN THE WORLD TODAY

Although Britain's interests are still worldwide and do not everywhere coincide with those of the United States—recognition of Red China and the attack on Suez, to name two instances—the American alliance is a cornerstone of British policy, as axiomatic with Labor as it is with the Conservatives. The alliance is dedicated to the winning of the cold war—and any “hot” war, if necessary—and to bringing freedom to the nations oppressed by Communist or other dictatorships. It is in the means of accomplishing these objectives that the two partners occasionally differ.

Being a great power is an expensive business, and Britain at times finds it difficult to maintain its status financially. There are many who argue that Britain should let its American partner carry the burden of expensive nuclear armaments rather than duplicating the effort; since Britain would be unlikely ever to be engaged in a nuclear war except at America's side. This would allow the United Kingdom to concentrate on mobile conventional forces, which are what she really will need for the small, regular, and far-flung operations likely to fall to her lot.

So Britain's defense, though seen as geared to America's under NATO, is also still conceived independently. Bases like Cyprus, Malta, Aden, Kenya, Singapore, and Hong Kong all make their claims on slender resources. It is a system wide open to the drain of constant small troubles which once they arise are fanned by the scouts of world communism. It is the requirements of small police operations and old-fashioned petty wars across the globe that many British feel must first be met.

In the field of diplomacy, too, there have been differences. It was Britain which maintained that a Foreign Ministers' conference in Geneva might be worthwhile when American opinion seemed disposed to regard such a meeting as fruitless unless a definite agenda could be agreed upon in advance. Yet when it came to negotiating with their adversaries, the British and Americans—and the French, too—presented a united front in offering counterproposals to Russia's demands that Berlin be abandoned by the West.

Economically, as Mr. Macmillan put it in 1957, most British people “have never had it so good.” The working people in Britain enjoy almost full employment and most of them have larger pay envelopes than ever before. The gadgets of comfort—refrigerators, washing machines, automobiles, television sets—are almost as common in working-class as they are in middle-class families. On top of what wages

will buy, there lie all the benefits of the Welfare State, which guarantees a liveable minimum from the cradle to the grave.

But the Welfare State and the great power status cost money, and to earn money Britain must export. She was able to get the export business going again after the war by large loans from the United States and by 1956 had doubled her pre-war volume of exports and raised the proportion of engineering goods to over half the total. She is concentrating on the development of new products and new industries—electronics, petrochemicals, plastics and synthetic fibers. It is the export of machines that pays best, the more scientifically advanced, the better. Let the successful export of manufactured goods fail, and everything fails. “Export or die” has been the slogan since the war.

HISTORY. Roman invasions of the first century B.C. brought Britain into contact with the continent. When the Roman legions withdrew in the fifth century A.D., Britain fell easy prey to the invading hordes of Angles, Saxons, and Jutes from Scandinavia and the Low Countries. Seven large kingdoms were established, and the original Britons were forced into Wales and Scotland. It was not until the eleventh century that the country finally became united under the Danish King Canute. Following the death of Edward the Confessor (1066), a dispute about the succession arose, and William Duke of Normandy invaded England, defeating the Saxon noble, Harold II, at the Battle of Hastings (1066). The Norman conquest was accompanied by the introduction of Norman law and feudalism, changing the customs of England.

The reign of Henry II (1154–89), first of the Plantagenets, saw an increasing centralization of royal power at the expense of the nobles, but in 1215 John (1199–1216) was forced to sign the Magna Carta, which awarded the people, especially the nobles, certain basic rights. Edward I (1272–1307) continued the conquest of Ireland, reduced Wales to subjection, and made some gains in Scotland. In 1314, however, English forces led by Edward II were ousted from Scotland after the battle

AREA AND POPULATION
OF MAJOR SUBDIVISIONS*

Subdivision	Area sq. mi.	Population, est. June 1957
England	50,871	45,043,000
Wales	7,474	
Scotland	29,795	5,211,000
Northern Ireland	5,459	1,399,000

* Not including Channel Islands and Isle of Man.

The Commonwealth of Nations

Europe

Political subdivision	Area (sq. mi.)	Population
United Kingdom	93,599	51,680,000 ^s
Channel Islands	75	100,000 ⁷
Isle of Man	221	55,000 ⁷
Gibraltar	2	25,000 ⁷
Malta	122	319,000 ⁷

Africa

Basutoland	11,716	658,000 ^s
Bechuanaland	275,000	334,000 ^s
Gambia	4,003	290,000 ⁷
Ghana	91,843	4,836,000 ^s
Kenya	223,478	6,351,000 ^s
Mauritius and dependencies	805	605,000 ^s
Nigeria (including British Cameroons)	373,250	32,433,000 ⁷
Rhodesia and Nyasaland, Federation of:		
Northern Rhodesia	290,323	2,300,000 ^s
Nyasaland	49,177	2,710,000 ^s
Southern Rhodesia	150,354	2,640,000 ^s
St. Helena and dependencies	119	5,000 ⁷
Seychelles	156	41,100 ⁷
Sierra Leone	27,926	2,120,000 ⁷
Somaliland	67,997	640,000 ^s
South-West Africa	317,725	539,000 ^s
Swaziland	6,705	260,000 ⁷
Tanganyika Territory	362,688	8,916,000 ^s
Uganda	93,981	5,767,000 ^s
Union of South Africa	472,733	14,418,000 ^s
Zanzibar and Pemba	1,020	299,000 ^s

America

Bahamas	4,404	123,000 ⁷
Barbados*	166	230,000 ⁷
Bermudas	21	42,000 ⁷
British Guiana	82,997	533,000 ^s
British Honduras	8,867	84,000 ⁷
Canada	3,619,616	17,048,000 ^s
Falkland Islands (excluding dependencies)	4,618	2,220 ⁴

America—(cont.)

Political subdivision	Area (sq. mi.)	Population
Jamaica and dependencies*	4,708	1,595,000 ⁷
Leeward Islands*	422	134,000 ⁷
Trinidad and Tobago*	1,980	765,000 ⁷
Windward Islands*	821	325,000 ⁷

Asia

Aden colony	108	140,000 ⁷
Aden protectorate	112,000	650,000 ⁷
Borneo:		
Colony of North Borneo	29,388	397,000 ⁷
Brunei	2,226	73,000 ⁷
Sarawak	47,069	640,000 ⁷
Ceylon	25,332	9,165,000 ⁷
Cyprus	3,572	536,000 ⁷
Hong Kong	391	2,748,000 ^s
India, Republic of	1,269,640	397,540,000 ^s
Federation of Malaya	50,690	6,277,000 ⁷
Singapore and dependencies	287	1,474,000 ⁷
Pakistan	364,737	85,635,000 ^s

Oceania

Australia, Commonwealth of	2,974,581	9,846,000 ^s
Fiji	7,040	354,000 ⁷
Gilbert and Ellice Islands	369	40,000 ⁷
Nauru	8	4,000 ⁷
New Hebrides	5,700	52,000 ⁷
New Zealand	103,740	2,282,000 ^s
Norfolk Island	13	1,000 ⁷
Papua-New Guinea	183,590	1,780,000 ⁷
Solomon Islands	11,500	104,000 ⁷
Tonga (Friendly Islands)	270	60,000 ⁷
Western Samoa	1,131	100,000 ⁷

(Note: Each population figure is followed by superior number denoting the year of estimate or census: ^s for 1958, ⁷ for 1957, ⁶ for 1956, ⁵ for 1955, etc.)

* Member of the British West Indies Federation, formed in January 1958.

of Bannockburn. The late thirteenth and early fourteenth centuries saw the development of a separate House of Commons with tax-raising powers.

Edward III's claim to the throne of France led to the Hundred Years' War (1338-1453), which ended with the loss of almost all the large English territory in France. In England the great poverty and discontent caused by the war was intensified by the Black Death, a plague which reduced the population by about one-third. The Wars of the Roses (1455-85), a struggle for the throne between the House of York and the House of Lancaster, were

ended by the victory of Henry Tudor (Henry VII) at Bosworth Field (1485).

During the reign of Henry VIII (1509-47), the Church in England asserted its independence from the Roman Catholic Church. Under Edward VI and Mary, the two extremes of religious fanaticism were reached and it remained for Henry's daughter, Elizabeth I (1558-1603), to set up the Church of England on a moderate basis. In 1588 the Spanish Armada, a fleet sent out by Catholic King Philip II of Spain, was defeated by the English and destroyed during a storm. During Elizabeth's reign, England became a world power.

Elizabeth's heir was of the house of Stuart—James VI of Scotland—who joined the two crowns as James I (1603–25). The Stuart Kings incurred large debts and were forced either to depend on Parliament for taxes or to raise money by illegal means. In 1642 war broke out between Charles I and a large portion of the Parliament; Charles was defeated and executed in 1649, and the monarchy was then abolished. The Puritan Commonwealth endured for ten years, but after the death (1658) of Oliver Cromwell, the Lord Protector, the government fell to pieces and Charles II was restored to the throne in 1660. The struggle between the King and Parliament continued, but Charles II knew when to compromise. His brother James II (1685–88) possessed none of his ability and was ousted by the Revolution of 1688, which confirmed the predominant position of Parliament. James' daughter, Mary, and her husband, William of Orange, now ruled jointly.

The reign of Queen Anne (1702–14) was marked by the Duke of Marlborough's victories over France at Blenheim, Oudenarde, and Malplaquet in the War of the Spanish Succession. England and Scotland meanwhile were joined together by the Act of Union (1707). Upon the death of Anne, the distant claims of the elector of Hanover were recognized, and he became King of England as George I.

The eighteenth century was a period of gradual growth and change. At home the unwillingness of the Hanoverian Kings to rule resulted in the formation by the King's ministers of a Cabinet, headed by a Prime Minister, which directed all public business. Abroad the constant wars with France resulted in expansion of the British Empire all over the globe, particularly in North America and India. This imperial growth was checked by the revolt of the American colonies (1775–81).

The age-long struggle with France broke out again in 1793, and during the lengthy Napoleonic Wars, which ended at Waterloo (1815), England was pitted at one time against almost all of Europe.

The Victorian era, named after Queen Victoria (1837–1901), saw the growth of a democratic system of government which had begun with the Reform Bill of 1832. The two important wars in Victoria's reign were the Crimean War against Russia (1853–56) and the Boer War (1899–1902). The latter was accompanied by enormous extension of England's sway in Africa.

The reign of Edward VII (1901–10) was marked by increasing uneasiness at home and abroad. Within four years after the accession of George V (1910), England entered World War I when Germany invaded Belgium. The nation was led by coalition

Cabinets headed first by Herbert Asquith and then (Dec., 1916) by the Welsh statesman, David Lloyd George. The years after the war were marked by labor unrest which culminated in the general strike of 1926. A Labour ministry formed early in 1924 by Ramsay MacDonald fell in October of that year. In 1929 a second Labour government was formed, but the world economic depression forced a change in 1931, and a national government was formed composed chiefly of Conservative members, although MacDonald remained Prime Minister until 1935. King Edward VIII succeeded to the throne in 1936 on his father's death but abdicated eleven months later (in order to marry an American, Wallis Warfield Simpson, whose second divorce was then pending) in favor of his brother, who became King George VI.

The efforts of Prime Minister Neville Chamberlain to meet by peaceful means the rising threat of Nazism in Germany failed with the German invasion of Poland (Sept. 1, 1939), which was followed by England's entry into World War II (Sept. 3, 1939). Serious Allied reverses in the spring of 1940 led to Chamberlain's resignation and the formation of another coalition war Cabinet by Conservative leader Winston Churchill, who led England through most of World War II. Churchill resigned as the coalition leader shortly after V-E Day, but then formed a "caretaker" government which remained in office until after the parliamentary elections of July 5, 1945, in which the Labour party won an overwhelming victory. The government formed by Clement R. Attlee on July 26 began a moderate socialistic program.

Internationally, the Attlee government continued Britain's close co-operation with the United States through the North Atlantic Treaty and in the Korean war, at the same time solidifying its position in Western Europe in opposition to the U.S.S.R. The Labour regime, returned to office by a slight majority in the parliamentary elections of Feb., 1950, lost by a narrow margin in the Oct., 1951 elections. On Oct. 26 Winston Churchill again became Prime Minister at the head of a Conservative government. George VI died Feb. 6, 1952, and was succeeded by his daughter, Elizabeth II.

Churchill voluntarily stepped down on April 5, 1955, in favor of Sir Anthony Eden, who led the Conservatives to another victory in elections May 26, 1955. The Suez crisis and the abortive Anglo-French invasion of Egypt (Oct. 31, 1956) were followed by Eden's resignation on grounds of ill health (Jan. 9, 1957). Harold Macmillan succeeded him.

RULER. Queen Elizabeth II, born April 21, 1926, elder daughter of King George VI and Queen Elizabeth, succeeded to the

throne on the death of her father, Feb. 6, 1952; married Nov. 20, 1947, to Prince Philip, Duke of Edinburgh, born June 10, 1921; their children are Prince Charles (heir presumptive), born Nov. 14, 1948, and Princess Anne, born Aug. 15, 1950. The Queen's sister is Princess Margaret Rose, born Aug. 21, 1930; her uncles are Prince Edward Albert, Duke of Windsor (formerly King Edward VIII), born June 23, 1894, and Prince Henry William, Duke of Gloucester, born March 31, 1900.

GOVERNMENT. The United Kingdom is a constitutional monarchy, with a Queen and a Parliament which has two houses: the House of Lords with about 830 hereditary peers, 26 spiritual peers, 16 Scottish representative peers, a number of Irish representative peers (vacancies are no longer filled), and a few life peers who hold or have held high judicial office; and the House of Commons, numbering since 1955 630 members elected by practically universal suffrage. Supreme legislative power is vested in Parliament, which holds office for five years unless sooner dissolved. The executive power of the Crown is exercised by the Cabinet, headed by the Prime Minister. The latter, normally the head of the party commanding a majority in the House of Commons, is appointed by the sovereign, with whose consent he in turn appoints the rest of the Cabinet. All ministers must be members of one or the other house of Parliament; they are individually and collectively responsible to the Crown, the Prime Minister and Parliament. The Cabinet proposes bills and arranges the business of Parliament but it depends entirely on the votes of confidence in Commons. The lords cannot hold up "money" bills, but they can delay other bills for a period of at least one year.

By the Act of Union (1707) the Scottish Parliament was assimilated with that of England, and Scotland is now represented in Commons by seventy-one members. The Secretary of State for Scotland, a member of the Cabinet, is responsible for the administration of Scottish affairs.

ECONOMIC CONDITIONS. *Agriculture.* Agriculture remains one of Britain's chief industries, employing about 800,000 persons.

Livestock (June 30, 1957) included 10,819,000 cattle, 18,701,000 sheep, 6,576,000 hogs, and 73,757,000 poultry. Cattle occupy a predominant position in British agriculture, accounting for about 40 per cent of the total farm output.

Industry. The most important British manufacture is heavy goods such as machinery, tools, bridges, and locomotives; industry is concentrated in the north and Midlands of England. Sheffield is the center of the steel industry, while the china

industry is concentrated in the Midlands. The cotton industry is centered in Lancashire; Liverpool, Manchester, Oldham, Preston, and Bolton are the main manufacturing towns. The wool industry, England's oldest large trade, is located just east of the cotton towns, at Leeds, Bradford, and Hull in Yorkshire. An important industrial region is the central Lowlands of Scotland, where woollens and other fabrics, lace, glass, paper, steel, and pig iron are produced. Important shipyards are located along the coast.

The total working population in June 1958 was 24,070,000.

Trade. The United Kingdom's economic prosperity is dependent on its foreign trade, and the nation made great efforts after World War II to build up its volume of exports.

Leading exports are machinery (non-electrical), road vehicles and aircraft, chemicals, electrical machinery, iron and steel.

Leading imports are meat, fruits and vegetables, cereals and cereal preparations, nonferrous base metals, wool.

Chief customers are United States, Australia, Canada, India, South Africa, and New Zealand.

Chief sources of imports for 1957 were sterling area (38%), continental European Payments Union countries (22%), the U. S. and Canada (20%), and Latin America (8%).

Communications. The merchant marine on June 30, 1956, represented about 18.5% of the world total and was second only to the U. S. merchant fleet.

Nationalization of the railway and canal systems in Great Britain became effective Jan. 1, 1948, and are now operated by the government's Transport Commission.

British air services throughout the world are nationalized under the Minister of Civil Aviation. Service is supplied by two public corporations—British Overseas Airways (BOAC) and British European Airways.

NATURAL FEATURES AND RESOURCES. The United Kingdom, consisting of England, Wales, Scotland, and Northern Ireland, is a third the size of Texas. England, in the southeast part of the British Isles, is separated from Scotland on the north by the granite Cheviot Hills; from them the Pennine chain of uplands extends south through the center of England, reaching its highest point in the Lake district in the northwest. To the west along the border of Wales—a land of steep hills and valleys—are the Cambrian Mountains while the Cotswolds, a range of hills in Gloucestershire, extend into the surrounding shires. The remainder of England is plain land,

though not necessarily flat, with the rocky sand-topped moors in the southwest, the rolling downs in the south and southeast and the reclaimed marshes of the low-lying Fens in the east central districts. Scotland is divided into three physical regions—the Highlands, the Central Lowlands, containing two-thirds of the population, and the Southern Uplands. The western Highland coast is intersected throughout by long narrow sea-lochs or firths. Scotland also includes the Outer and Inner Hebrides and other islands off the west coast, and the Orkney and Shetland Islands off the north coast.

Wales is generally hilly; the Snowdon range in the northern part culminates in Mt. Snowdon (3,557 ft.), highest in either England or Wales.

Important rivers flowing into the North Sea are the Thames, Humber, Tees, and Tyne. In the west are the Severn and the Wye, which empty into the Bristol Channel and are navigable, as are the Mersey and Ribble.

Minerals. Great Britain's most important mineral resource is coal, which was responsible to a large extent for British industrial supremacy during the late eighteenth and the nineteenth centuries. The coal mines were nationalized in 1946. Reserves have been variously estimated at from 150,000 million to 200,000 million tons. Prior to World War II, coal was exported in declining amounts to the continent, mainly to France, Sweden, Denmark and Italy. Since the war, however, Britain has been hard put to meet her own minimum domestic requirements.

Most of the British iron ore is produced in England, especially in Cumberland, Lancashire, and Staffordshire. Tin ore and copper are obtained almost exclusively from Cornwall, while lead comes mainly from Flint, Durham, and Derbyshire. Zinc occurs mainly in North Wales, the north of England, the Isle of Man, and the county of Dumfries in Scotland. The whole British supply of china clay (kaolin)—of great importance in the ceramic, paper-making, bleaching, and chemical industries—comes from Cornwall. Petroleum production is negligible, but oil shale exists in large quantities.

Water Power. The most important potential sources of water power are in the highlands of Scotland, North Wales, and Cumberland. Nationalization of the electric and gas industries became effective in 1948.

Forests and Fisheries. Great Britain was once heavily forested, but centuries of timber cutting and clearing have denuded the country of the original forests. Woodland of all types approximates 3,000,000 acres, and barely 40% of Britain's surface is covered with timber. Consequently the

nation is heavily dependent on imported timber.

Great Britain's sea fishing industry is among the most important in the world. The principal kinds of fish caught are herring, cod, haddock, plaice, and hake, classed as wet fish, and, among shellfish, oysters, crabs, and lobsters. The most important factor in the export trade is salted herring, which ordinarily represents about 70% of the total. Principal grounds frequented by British fishermen are the North Sea; off Iceland; the Faeroes; south of Ireland; west of Scotland; west of Ireland; the Irish Sea; and the English Channel.

NORTHERN IRELAND (Part of United Kingdom)

Area: 5,459 square miles.

Population (est. June 1957): 1,399,000.

Density per square mile: 256.3.

Governor: Lord Wakehurst.

Prime Minister: Viscount Brookeborough.

Principal cities (census 1951): Belfast, 443,671 (capital); Londonderry, 50,092.

Monetary unit: Pound sterling.

Language: English, Gaelic.

Religions (census 1951): Roman Catholic (34.4%), Presbyterian (29.9%), Church of Ireland (25.8%), Methodist (4.9%), others (5%).

Northern Ireland comprises the six predominantly Protestant counties of Antrim, Armagh, Down, Fermanagh, Londonderry, and Tyrone (collectively known as Ulster), which form the northern part of the island of Ireland. The area is an integral part of the United Kingdom, but under the terms of the Government of Ireland Act (1920) it has a semi-autonomous government.

The government has only limited powers for local purposes, and many matters are reserved to the central government at Westminster. Executive authority is vested in the Crown-appointed Governor, who is advised by a Cabinet of eight ministers headed by the Prime Minister. The Parliament consists of the House of Commons of fifty-two members elected for 5-year terms, and the Senate of twenty-six members elected by the House of Commons. The area is also represented by twelve members in the British House of Commons.

Agriculture is the largest single industry; about two-thirds of the country is devoted to crops and pasture under a system of mixed farming. The leading crops include potatoes, oats, and flax. In 1955 there were 905,890 cattle, 878,480 sheep, and 696,410 hogs.

The two principal manufacturing industries are linen and shipbuilding, both centered in Belfast. The linen industry was established by Huguenot weavers who fled France after the revocation of the Edict of Nantes in 1685.

ISLE OF MAN

Lieutenant Governor: Sir Ambrose Dundas.

Located in the Irish Sea, equidistant from Scotland, Ireland, and England, the Isle of Man is administered according to its own laws by a government composed of the Lieutenant Governor, a Legislative Council, and a House of Keys, one of the most ancient legislative assemblies in the world.

CHANNEL ISLANDS

Lieutenant Governor of Jersey: Adm. Sir Randolph Nicholson.

Lieutenant Governor of Guernsey: Air Marshal Sir Thomas Elmhirst.

This group of islands, lying in the English Channel off the northwest coast of France, is the only portion of the Duchy of Normandy belonging to the English Crown, to which it has been attached since the conquest of 1066. It was the only British possession occupied by Germany during World War II.

For purposes of government the islands are divided into Jersey (45 sq. mi.) and the bailiwick of Guernsey (24 sq. mi.), including Alderney (3 sq. mi.), Sark (2 sq. mi.), Herm, and Jethou. The islands are administered according to their own laws and customs by local governments headed by Crown-appointed Lieutenant Governors. Acts of Parliament in London are not binding on the islands unless they are specifically mentioned.

French is still the official language, although English is the main language of commerce.

GIBRALTAR—Status: Colony.

Governor: Lt. Gen. Sir Harold Redman.

Gibraltar, at the south end of the Iberian Peninsula, is a rocky promontory commanding the western entrance to the Mediterranean. Aside from its strategic importance, it is also a free port, naval base, and coaling station. It was captured by the Arabs crossing from Africa into Spain in A.D. 711. In the fifteenth century it passed to the Moorish ruler of Granada and later became Spanish. It was captured by an Anglo-Dutch force in 1704 during the War of the Spanish Succession and passed to Britain by the Treaty of Utrecht in 1713. Most of the inhabitants are of Spanish, Italian and Maltese descent.

MALTA—Status: Self-governing colony.

[Capital: Valletta (population 18,801).]

Governor: Sir Guy Grantham.

Prime Minister: (Post now vacant).

Agricultural products: potatoes, onions, cereals, fruits.

The Maltese islands lie between Europe and Africa, in the central channel linking the eastern and western Mediterranean. The inhabited islands are Malta (95 sq. mi.), Gozo (26 sq. mi.) and Comino (1

sq. mi.). The Knights of St. John (Malta), who obtained the islands from Charles V in 1530, reached their highest fame when they withstood an attack by superior Turkish forces in 1565. Napoleon seized Malta in 1798, but the French forces were ousted by British troops in 1799, and British rule was confirmed by the Treaty of Paris (1814). The principal importance of Malta is its strategic location as a naval base; it was heavily attacked by German and Italian aircraft during World War II but was never invaded by the Axis. Most of the population are Maltese, speaking the Phoenician Maltese language, a tongue akin to Syriac and Arabic. The islands are densely populated (2,554 per square mile in 1956).

Under its 1947 Constitution, Malta enjoyed a measure of self-government. In April, 1959, the British Colonial Office suspended the 1947 Constitution and issued an interim Constitution granting the Government power to enact ordinances and to accept or reject the advice of an Executive Council concerned with questions of domestic administration of the island. Defense and foreign affairs are reserved to the British government under Section 14 of the new Constitution.

AFRICA

BRITISH SOUTH AFRICAN TERRITORIES

High Commissioner: Sir Percivale Lieching.

The three British territories in southern Africa—Basutoland, Bechuanaland and Swaziland—are not part of the Union of South Africa, but are administered by a High Commissioner responsible to the Secretary of State for Commonwealth Relations in the British Cabinet. He is also High Commissioner for the United Kingdom in the Union of South Africa.

BASUTOLAND—Status: Colony.

Capital: Maseru (population 4,000).

Resident Commissioner: E. P. Arrow-smith.

Agricultural products: corn, wheat, sorghum.

Basutoland is a mountainous enclave surrounded by the Union of South Africa and bounded by the Orange Free State, Cape Province and Natal. It was constituted a native state under British protection by a treaty signed with the native chief Moshesh in 1843. It was annexed to Cape Colony in 1871, but on Mar. 13, 1884, was restored to direct control by the Crown. The Resident Commissioner is advised by a council of 100, of whom 95 are nominated by the native chiefs who administer the affairs of their tribes.

The population is restricted almost entirely to the lowland strip in the west; the white population (1,926 in 1956) consists solely of officials, missionaries, traders, and a few labor agents for employers in the Union of South Africa. About 100,000 natives are regularly employed in the Union. Sheep raising is highly developed. Land is the common property of the nation and is held in trust by the chiefs.

BECHUANALAND—Status: Protectorate. Administrative center: Mafeking, in Cape Province (population 4,666).

Resident Commissioner: Robert P. Fawcus.

Agricultural products: hides and skins, cattle, butter, millet, maize.

Minerals: gold and silver.

Bechuanaland lies in south central Africa, bounded on the south and southeast by the Union of South Africa, on the west by South-West Africa, on the north by Angola and Northern Rhodesia and on the northeast by Southern Rhodesia. Its average elevation is 3,300 feet and the greater part is gently undulating. The area was placed under British protection on Sept. 30, 1885, to prevent further Boer encroachment and has since remained a British protectorate. The form of government is similar to that of Basutoland.

Most of the inhabitants are Bantu, but there were 3,177 Europeans in 1956, a few of them farmers. The country is essentially pastoral, with cattle raising and dairy farming the chief industries. Gold is mined in the Tati district near Francistown. There is also some mining of silver and copper. Timber is produced for use as fuel and pit props.

SWAZILAND—Status: Protectorate.

Capital: Mbabane (population 1,600).

Resident Commissioner: D. L. Morgan.

Agricultural products: cattle, hides and skins, butter, tobacco, corn, millet.

Minerals: asbestos, tin, gold.

Swaziland lies at the southeastern corner of the Transvaal. It is largely hilly, with an average elevation of 4,000 feet in the west. It came under the protection of the Transvaal Republic in 1894 but was made a British protectorate in 1906 under the High Commissioner for South Africa.

The natives are mostly Swazi; there were 5,932 Europeans in 1956, mostly farmers. Grazing is the principal native occupation; there is excellent pasture in the high land to the west. Tropical and subtropical crops are raised in the lower areas. Tin is mined near Mbabane.

EAST AFRICA HIGH COMMISSION

The East Africa High Commission, comprising the Governors of Kenya, Tanganyika and Uganda, administers the public utilities and other central services of those territories, and has power to legislate with

respect thereto with the advice and consent of a Central Legislative Assembly. The governments of the three areas are otherwise independent of one another.

KENYA—Status: Colony and protectorate.

Capital: Nairobi (pop. 1956: 118,978).

Governor: Sir Patrick Muir Renison.

Foreign trade (1956): domestic exports, 25% to Britain; imports, 51% from Britain. Chief exports: coffee (47%), tea (9%), sisal (7%).

Agricultural products (exports 1956): coffee, tea, sisal.

Minerals: gold, sodium carbonate, silver, salt.

Forest products: wattle bark extract, timber.

Kenya extends along the Indian Ocean between Ethiopia and Tanganyika Territory and westward to Lake Victoria and Uganda. Formerly known as the East Africa Protectorate, it was held under a concession from the Sultan of Zanzibar by the Imperial British East Africa Company from 1888 to 1905. It became a Crown colony in 1920, the coastal strip leased from the Sultan becoming a protectorate.

The colony is predominantly agricultural, and a large area is cultivated by Europeans. Altitude ranges from sea level to more than 9,000 ft.; hence, the cultivation of tropical, subtropical and temperate crops is possible.

Kenya has been plagued since 1952 by serious outbreaks of native terrorism inspired by the anti-white Mau Mau secret society, which have taxed strengthened security forces, including British regular army units.

TANGANYIKA TERRITORY—Status: U. N. trust territory.

Capital: Dar es Salaam (pop. 1957: 128,742).

Governor: Sir Richard G. Turnbull.

Foreign trade (1956): domestic exports, 31% to Britain; imports, 41% from Britain. Chief exports: sisal (24%), coffee (21%), cotton (17%), diamonds.

Agricultural products: sisal, coffee, cotton, peanuts, sugar cane, tea.

Minerals: gold, diamonds.

Forest products: gum arabic and copal, beeswax, timber.

Tanganyika Territory, with the Belgian Ruanda and Urundi, constituted German East Africa from 1884 until 1919. It was administered under League of Nations mandate by Britain until 1946, when it was placed under United Nations trusteeship, with Great Britain as the administering power.

Tanganyika's narrow coastal plain is bordered on the west by the precipitous eastern side of the Central African plateau. Mount Kilimanjaro (19,565 ft.) is the highest point on the African continent.

The territory also includes adjacent islands in the Indian Ocean.

The territory is sparsely populated; two-thirds of it is uninhabited. It is the world's largest producer of sisal hemp.

UGANDA—Status: Protectorate.

Capital: Entebbe (pop. 1957: 8,500).

Governor: Sir Frederick Crawford.

Foreign trade (1956): exports, 28% to India; imports, 30% from Britain. Chief exports: cotton, coffee.

Agricultural products: cotton, coffee, sugar cane, rubber, tea, sisal.

Minerals: gold, tin.

Uganda lies immediately south of Anglo-Egyptian Sudan and west of Kenya, along the northwest shore of Lake Victoria. The surface is extremely diversified, with lofty plateaus, snow-capped peaks, swamps, forests and arid areas. A British protectorate over the area was proclaimed in 1894. A large measure of home rule is given the native states, notably Buganda, whose *kabaka* (king) is assisted by a ministry and native parliament.

Agriculture, including livestock, is the basis of the economy. Cotton is raised, principally by natives, and coffee, tea and rubber are grown on large plantations. Most natives possess large herds of cattle and sheep.

GAMBIA—Status: Colony and protectorate.

Capital: Bathurst (population 19,602).

Governor: E. H. Windley.

Foreign trade. Chief export: peanuts (90%).

Agricultural products: peanuts, hides and skins, millet, rice, palm kernels.

Gambia, smallest of the British West African dependencies, is a stretch of land 200 miles long on both sides of the lower Gambia River, surrounded on all land sides by French West Africa and fronting on the Atlantic Ocean. During the 17th century it was settled by various companies of English merchants; slavery was the chief source of revenue until it was abolished in 1807. Gambia became a Crown colony in 1843. Except for the island of St. Mary, on which the capital stands, the area is administered as a protectorate.

The inhabitants, mostly Negroes or Negroids, are predominantly Mohammedan. The principal economic activity is the cultivation of peanuts. Internal transportation is by steamer and launch.

Ghana

(Member of Commonwealth of Nations)

Area: 91,843 square miles.

Population, (est. 1958): 4,836,000 (almost entirely African).

Density per square mile: 52.7.

Ruler: Queen Elizabeth II.

Governor General: Earl of Listowel.

Prime Minister: Kwame Nkrumah.

Principal cities (est. 1958): Accra, 208,000 (capital); Kumasi, 99,000 (rail center); (census 1948): Sekondi-Takoradi, 44,557 (rail terminus and port).

Monetary unit: Gold Coast pound.

Languages: Native tongues (Twi, Fanti, Ga), English.

Religions: Pagan, Mohammedan, Christian.

STATUS IN THE WORLD TODAY

The official international policy of Ghana, newest independent member of the British Commonwealth, is one of "non-alignment" in the cold war, but the nation is leaning in a westerly direction and looks to the United States for financial aid in developing its economic resources. In relations with the rest of Africa, Prime Minister Nkrumah, who was educated in the United States, aspires to leadership of a pan-African movement, and, with Guinea, the only French colony to choose independence instead of a limited autonomy within the French Union, has formed the Union of Independent African States, little more than a very loose federation.

Politically, there has been criticism of Ghana for the sometimes undemocratic methods resorted to under Nkrumah's one-party control of the country: revising the constitution to meet the ruling party's fancy; dissolving the regional assemblies and curbing the powers of tribal chieftains; arresting and detaining opponents of the government, including members of Parliament, without trial. But supporters of the regime maintain that a strong hand is necessary for stability while the new nation suffers its growing pains.

Ghana has a prosperous economy based on cocoa, of which it is the world's largest producer, although it is at times vulnerable to price fluctuations on the world market. But it has large bauxite deposits and plans are well advanced to carry out a Volta River dam project which will furnish power for an aluminum industry in the interior as well as the development of other new industries.

HISTORY AND GOVERNMENT. Created an independent country on March 6, 1957, Ghana is the former British colony of the Gold Coast. The area was first seen by Portuguese traders in 1470. They were followed by the English (1553), the Dutch (1595), and the Swedes (1640). British rule over the Gold Coast began in 1820, but it was not until after quelling the severe resistance of the Ashanti in 1901 that it was firmly established. British Togoland, formerly a colony of Germany, was incorporated into Ghana by referendum in 1956.

ECONOMIC CONDITIONS. The mainstay of the economy is the cultivation of cacao, in the production of which Ghana leads the rest of the world. Secondary export crops include palm kernels, copra, kola nuts, coffee, and rubber.

Chief exports in 1956 were cacao (59%), wood and lumber (11%), diamonds (9%), gold (9%) and manganese ore (8%). Chief customers in 1955 were Britain (41%), the U. S. (18%) and the Netherlands (11%); leading suppliers, Britain (47%), Japan (10%), and the Netherlands (8%).

Mineral resources are abundant. Most important is gold, mined at Tarkwa, Bibiani, and Obuasi. Others include diamonds, manganese ore, and bauxite. Forest resources are extensive and large amounts of hardwoods, notably mahogany, are exported from the forests in the interior.

The coastal belt of the new nation, extending about 270 miles along the Gulf of Guinea, is sandy, marshy and generally exposed. Behind it is a gradually widening grass strip. The forested plateau region to the north is broken by ridges and hills.

KENYA (See EAST AFRICA HIGH COMMISSION)

MAURITIUS—Status: Colony.

Capital: Port Louis (pop. 1956: 80,200).

Governor: Sir Robert Scott.

Foreign trade. Chief export: sugar (96%).

Agricultural products: sugar, tea, tobacco, copra.

Mauritius is a mountainous island of volcanic origin in the Indian Ocean, about 500 miles east of Madagascar. It was seized in 1810 from the French, who had settled it in 1715, and was formally ceded to Great Britain by the Treaty of Paris in 1814.

With over 700 persons per square mile, the island is one of the most densely populated regions in the world. There is a large white element, chiefly French and British, but British Indians are predominant. There are many half-castes.

NIGERIA, FEDERATION OF—Status: Colony and protectorate.

Governor general: Sir James Robertson.

Federal Premier: A. A. T. Balewa.

Principal cities (census 1952-53): Ibadan, 459,196 (native metropolis); Lagos, 267,407 (capital); Ogbomoso, 139,535 (native city); Kano, 130,173 (textiles, leather goods, cattle).

Monetary unit: Nigerian pound.

Languages: Native tongues, Arabic, English.

Religions: Mohammedan, Pagan, Christian.

STATUS IN THE WORLD TODAY

The largest British colony remaining today, Nigeria is scheduled for independence in 1960, following the pattern set in 1957

by Ghana. In common with the other territories of West Africa, Nigeria has advanced rapidly on the road to self-government since 1945. Although British control over the colony was established in 1900, little effort was made before World War II to introduce popular representation. An efficient system of colonial administration was set up, at the head of which was a Legislative Council with a few African elected members, but not until 1946 were popularly elected Regional Houses of Assembly created.

Nigeria is perhaps the richest of the West African territories in variety of natural resources. Virtually the entire world's supply of columbite, a rare metal used in alloys for jet engines, comes from Nigeria. There are good prospects for commercial oil production in Eastern Nigeria. Nigerian industry is still in its early stages of development, but with the rapid spread of education it is expected that within a few years many of the products now imported will be manufactured at home with skilled Nigerian labor.

Nigeria, with an area twice that of California, is situated on the Gulf of Guinea in West Africa. Between 1879 and 1914 private colonial developments by the British, with reorganizations of the Crown's interest in the region, resulted in the formation of Nigeria as it exists today. During World War I, native troops of the West African frontier force joined with French forces to defeat the German garrison in the Cameroons. The Cameroons, a narrow strip along Nigeria's eastern border, became a League mandate after World War I, divided between France and Britain. Today the British Cameroons, a U. N. trust territory, is attached to Nigeria for administrative purposes. In early 1958, the British Secretary of State for Colonies announced the approval of a grant of \$1,750,000 to assist in the expansion of educational facilities in Lagos.

ECONOMIC CONDITIONS. Among the leading export crops are cacao, peanuts, palm kernels, palm oil, and rubber. Hides and skins are also important export items. Aside from small native industry, there is no manufacturing.

Chief exports in 1956 were peanuts (21%), cacao (18%), palm kernels (15%), and palm oil (9%). Leading customers were Britain (63%), the Netherlands (10%), and the U. S. (9%); leading suppliers, Britain (45%), Japan (13%), and Western Germany (8%).

Nigeria is a leading tin producer from mines on the Bauchi plateau. Other minerals are coal, gold, lead, silver, and tungsten. Over half the area is forested. Mahogany is the main timber export.

FEDERATION OF RHODESIA AND NYASALAND

Governor General: Earl of Dalhousie.
Prime Minister: Sir Roy Welensky.
Foreign trade (1956): exports, 58% to Britain, 10% to Union of South Africa; imports, 41% from Britain, 34% from Union of South Africa. Chief exports: copper (38%), tobacco (15%), asbestos (4%).

STATUS IN THE WORLD TODAY

The Central African Federation consists of the two British protectorates of Northern Rhodesia and Nyasaland and the self-governing British colony of South Rhodesia, and stretches for more than 1,000 miles south from the borders of Tanganyika to the northern rim of the Union of South Africa.

The Governor General of the Federation is appointed by the British Crown, and the Federal Assembly of 59 members is partly appointed and partly elected. The distribution of Assembly seats by territory grants 31 to Southern Rhodesia, 18 to Northern Rhodesia, and 10 to Nyasaland.

The rate of African advancement and the distribution of political power between the races are the major internal issues within the Federation. Southern Rhodesia is leading the Federation in pressing for dominion status by 1960. American private investments have been substantial in this area and the minerals of the Rhodesias, especially copper, have added further to the strategic importance of these territories.

NORTHERN RHODESIA—Status: Protectorate.

Capital: Lusaka (pop. 1956: 60,000).
Governor: Sir Evelyn Hone.
Agricultural products: tobacco, maize, wheat.
Minerals: copper, cobalt, vanadium, lead, zinc.

NYASALAND—Status: Protectorate.

Capital: Zomba (pop. 1956: 6,600).
Governor: Sir Robert Armitage.
Agricultural products: tobacco, tea, cotton.

SOUTHERN RHODESIA—Status: Self-governing colony.

Capital: Salisbury (pop. 1956: 186,850).
Governor: Vice-Adm. Sir Peveril William-Powlett.
Prime Minister: Sir Edgar Whitehead.
Agricultural products: tobacco, corn, peanuts, meat, hides, and skins.
Minerals: asbestos, gold, coal, chrome ore.

ST. HELENA—Status: Colony.

Capital: Jamestown (pop. 1956: 1,568).
Governor: Sir James Harford.
Foreign trade (1956): exports, 71% to

Britain; imports, 44% from Britain. Chief export: hempen products (82%).

Agricultural products: flax, potatoes.

St. Helena is a volcanic island (47 sq. mi.) in the South Atlantic about 1,200 miles from the west coast of Africa. It is famous as the place of exile of Napoleon (1815-21). It was taken for Britain in 1651 by the British East India Company and became a Crown colony in 1833. Attached to it are Ascension Island (34 sq. mi.), 800 miles northwest, and the Tristan da Cunha group (45 sq. mi.), about 1,500 miles southwest. Most of the inhabitants are of mixed European, East Indian and African descent.

SEYCHELLES—Status: Colony.

Capital: Victoria (population 10,000).
Governor: Sir William Addis.
Foreign trade (1956): exports, 69% to India; imports, 38% from Britain. Chief export: copra (69%).

Agricultural products: cinnamon, patchouli oil, coconuts, maize, sugar cane.

This archipelago of about 92 islands in the Indian Ocean was seized from France by British troops in 1794 and ceded to Britain by the Treaty of Paris in 1814. The principal island is Mahé (55 sq. mi.), about 600 mi. northeast of Madagascar.

SIERRA LEONE—Status: Colony and protectorate.

Capital: Freetown (pop. 1956: 100,000).
Governor: Sir Maurice Dorman.
Chief Minister: M. A. S. Margai.
Foreign trade (1956): exports, 63% to Britain; imports, 54% from Britain. Chief exports: diamonds (41%), iron ore (30%), palm kernels (11%).

Agricultural products: palm kernels, palm oil, rice, millet, cassava, rubber.
Minerals: iron ore, diamonds, gold.
Forest products: palm kernels, piassava.

Sierra Leone lies on Africa's west coast between French Guinea and Liberia. It is a well-watered hilly country but has a low swampy coastland with an extremely unhealthy climate. The coastal area (colony proper) was ceded to English settlers in 1788 as a home for Negroes discharged from the British armed forces and also for runaway slaves who had found asylum in London. The British protectorate over the hinterland was proclaimed in 1896. It was not until 1928 that slavery was totally abolished in the protectorate. Under the 1951 Constitution as amended the House of Representatives has 57 members, of whom 51 are elected directly or indirectly.

Freetown is the best harbor on the west coast. Iron ore (60% metal content) from deposits at Marampa is shipped from Pepel, northeast of Freetown.

SOMALILAND—Status: Protectorate.

Administrative center: Hargeisa (population, about 20,000 in hot season and 45,000 in cold season).

Governor: Sir Theodore Pike.
 Chief export: hides and skins.
 Agricultural products: cattle, hides and skins, grains.
 Forest products: gums and resins.

British Somaliland extends along the Gulf of Aden for about 400 miles and inland for 80 to 220 miles. The interior is an elevated plateau falling in steep escarpments to the coastal plain. It came under Egyptian influence in 1875, but during the years 1884-86 treaties guaranteeing British protection were signed with the various Somali chiefs. Italian troops occupied the protectorate in 1940, but it was retaken by British troops in 1941. Both executive and legislative power is exercised by the Governor.

Most of the inhabitants are nomadic Somalis of Mohammedan faith. Their principal activity is stock raising.

SOUTH-WEST AFRICA (See **UNION OF SOUTH AFRICA**)

SWAZILAND (See **BRITISH SOUTH AFRICAN TERRITORIES**).

TANGANYIKA & UGANDA (See **EAST AFRICA HIGH COMMISSION**)

Union of South Africa

(Member of Commonwealth of Nations)

Area: 472,733 square miles.*

Population (est. June 30, 1958): 14,418,000* (European, 20.9%; Bantu, 66.9%; mixed, 9.2%; Asiatic, 3.0%).

Density per square mile: 30.5.*

Ruler: Queen Elizabeth II.

Governor General: Ernest G. Jansen.

Prime Minister: Hendrik Frensch Verwoerd.

Principal cities (est. 1956): Johannesburg, 1,006,500 (gold, industrial center); Capetown, 687,900 (seat of legislature, seaport); Durban, 591,300 (seaport); Pretoria, 327,200 (seat of administration); Port Elizabeth, 231,400 (seaport).

Monetary unit: South African pound (ESA).

Languages: English, Afrikaans.

Religions (European pop., 1946): Dutch Reformed Churches, 55%; Anglican Church, 19%; Methodist, 6%; Presbyterian, 5%; Roman Catholic, 5%; others 10%.

* Excluding South-West Africa.

STATUS IN THE WORLD TODAY

Although the Union of South Africa is definitely anti-Communist, the dominant policy of apartheid of the ruling Nationalist Party, which has been in power since 1948, is one which is opposed by many nations within the Free World. The Nationalists also sought, unsuccessfully, to maintain South Africa's neutrality in World War II in 1939, and since coming to power have fought for the formation of a republic and white supremacy.

In its ultimate form, the policy of apartheid is envisaged as total separation of the races by removing the Bantu from those areas presently occupied by Europeans. They would be forced to live in reserved areas which would be under African forms of local government. These areas would be industrialized gradually so that there would be no need to leave the area for work. It is, of course, universally acknowledged that complete separation is not possible in the foreseeable future, but this is the ultimate goal toward which the racial policy is directed, and a number of legislative acts to enforce certain aspects of apartheid have been promulgated in the past ten years.

The rise of a mining industry—with the discovery of gold and diamonds—transformed the traditional agricultural economy of South Africa, and since World War I the economic focus has been shifting to the cities and the industries growing up around them. Manufacturing now contributes the largest share of the Union's national income. Over 50% of the raw materials used in industry are produced within the Union. Economic expansion has created a need for new capital resources and since World War II over \$2 billion of foreign capital—chiefly British and European—has flowed into South Africa. If the Union is to continue its growth both in the manufacturing and in the processing of raw materials there would appear to be little alternative to employing and training more African workers, since the skilled labor supply in some industries is already short. It remains to be seen how this need can be reconciled with the expressed goals of apartheid.

HISTORY AND GOVERNMENT. Dutch settlers first came to South Africa in 1652. By the beginning of the eighteenth century, nearly 2,000 settlers were established. Although the colony was made up of Europeans from various countries, it assumed a thoroughly Dutch character.

In consequence of the Napoleonic wars, Britain gained control over the Cape Colony in 1814 and within seven years 5,000 British settlers had taken up residence. The British administration freed the slaves upon whom many Boer farmers depended for labor and sought to establish equality of rights for the colored population, who worked in the main for Boer landowners. By the mid-nineteenth century the present form of the Union was emerging; settlers were scattered on the northern side of the Vaal and Orange rivers. In 1877, the British annexed the Transvaal territory, and although it was relinquished again in 1881, the act created bitter resentment

among the Dutch settlers. The conflict between the Imperialism of England and the Republicanism of the Boer colonies culminated in the Jameson Raid, which was the opening gun of the bitter Anglo-Boer war (1899-1900).

The two years of war paved the way for the creation of the Union of South Africa, but it left behind a bitterness which lasts until today. The Union in its present form came into existence in 1910 by the South Africa Act. At its head is the Union Government and within each of the four provinces (Cape, Transvaal, Orange Free State, and Natal) there are provincial parliaments. The dual nature of the Union is illustrated by the fact that there are two capitals (Cape Town and Pretoria), two official languages (English and Afrikaans), two flags, and two national anthems. The Union Parliament is made up of the House of Assembly, consisting of 163 members, and a Senate of eighty-nine members. House members hold their seats for 5 years and senators for 10 years unless Parliament is dissolved before the end of their terms.

ECONOMIC CONDITIONS. South Africa is predominantly a pastoral country, with less than 15 per cent of its area considered arable. Sheep and cattle raising are the principal occupations, especially in the high veldt. In 1955 there were 37,576,000 sheep, 11,709,000 cattle, and 491,000 hogs.

Climate and differences in terrain combine to give a great variety of agricultural products. The staple crop is maize, grown widely. In southwest Cape Province, products of the Mediterranean type predominate, while in the coastal belt of Natal and in northern Transvaal subtropical crops, especially sugar, are grown.

Food, beverages and tobacco, and metal products are leading products. As a result of the need for armaments a wartime iron and steel industry was established, and cement, chemical, textile, and auto assembly plants were expanded.

Chief exports in 1957 (besides gold) were wool (15%) and diamonds (8%). Main customers (1957) were Britain (29%), Rhodesia and Nyasaland (13%), and the United States and Canada (7%); leading suppliers, Britain (33%), the United States and Canada (23%), Germany (8%), other EPU countries (13%). Principal imports included textiles, farm and industrial machinery, motor vehicles, and petroleum products.

NATURAL FEATURES AND RESOURCES. The Union has a high interior plateau, or veldt, nearly half of which averages 4,000 feet in elevation. There are no important mountain ranges, although the Great Escarpment, separating the veldt from the coastal plain, rises to over 10,000 feet. The principal river is the Orange, ris-

ing in Basutoland and flowing westward for 1,300 miles through the Union's center to the Atlantic.

Extensive mineral resources account for the economic prosperity. The Union is the world's leading gold producer. Diamond production is now surpassed in importance by coal. Uranium, gypsum, tin, and tungsten also are mined.

The whaling industry, centered at Durban on the east coast, produces considerable amounts of whale oil. The Union has extensive fishery resources along the 1,500 miles of coast line.

SOUTH-WEST AFRICA—Status: Mandate.

Administrator: Daniel du P. Viljoen.

Capital: Windhoek (population 30,908).

Agricultural products: hides and skins, butter, corn, wheat.

Minerals: diamonds, vanadium concentrates, tungsten, lead, tin, iron ore, copper.

The mandate, bounded on the north by Angola, and on the east by Bechuanaland and the Union of South Africa, was discovered by the Portuguese explorer Diaz in the late 15th century. It is for the most part a portion of the high plateau of South Africa with a general elevation of from 3,000 to 4,000 feet. It became a German colony in 1884 but was conquered by South African forces in 1915, becoming a Union mandate by the terms of the Treaty of Versailles. The Union of South Africa's application for incorporation of the territory into the Union was rejected by the United Nations assembly on Dec. 14, 1946, and the Union was invited to prepare a trusteeship agreement instead. By a law passed in April, 1949, however, the territory was brought into much closer association with the Union—including representation in the Union Parliament.

The country in general is better suited to grazing than to the raising of crops because of the light rainfall. The karakul sheep industry is well-developed.

ZANZIBAR—Status: Protectorate.

Capital: Zanzibar (pop. 1957: 49,494).

Sultan: Seyyid Sir Khalifa bin Harub.

British Resident: Sir Henry Potter.

Foreign trade (1955): exports, 47% to Indonesia; imports, 28% from Britain. Chief export: cloves (80%).

Agricultural products: cloves, clove oil, coconut oil, copra.

The protectorate consists principally of the islands of Zanzibar (640 sq. mi.) and Pemba (380 sq. mi.), just off the East African coast. Before 1890, the sultanate's territory also included a large area on the mainland, now comprising Italian Somaliland, Kenya and Tanganyika Territory. It was proclaimed a British protectorate Nov. 4, 1890. The British Resident administers the government, but the Sultan still retains considerable authority.

Principal industry is the production of cloves—about 80% of the world supply.

WESTERN HEMISPHERE

BAHAMAS—Status: Colony.

Capital: Nassau (population 36,246).

Governor: Sir Oswald Arthur.

Foreign trade (1956): exports (57% to the U. S.); imports (53% from the U. S.). Chief exports: lumber (26%), crawfish.

Agricultural products: tomatoes, citrus fruit, sisal.

Sea products: sponges, lobsters, crawfish.

The Bahamas are an archipelago of about 3,000 islands, islets (cays) and rocks, east of Florida and north of Cuba, extending from N.W. to S.E. for about 800 miles. Only about 20 of the islands are inhabited; the most important is New Providence (20 sq. mi.) on which Nassau is located. The islands were reached by Columbus in Oct., 1492, and were a favorite pirate resort in the early 18th century. They have been a Crown colony since 1717. The Constitution provides for a nominated Legislative Council and a popularly elected Assembly. The Governor is advised by an Executive Council.

Over 85% of the population is Negro. The tourist trade is of paramount importance, especially at Nassau.

BARBADOS—Status: Colony.

Capital: Bridgetown (pop. 1955: 18,500).

Governor: Sir Robert Arundell.

Prime Minister: Sir Grantley Adams.

Foreign trade (1956): exports (53% to Britain); imports (35% from Britain). Chief exports: sugar (67%), molasses (12%), rum.

Agricultural products: sugar, cotton, maize, cassava.

Manufactures: rum, molasses.

Barbados, an island east of the Windward group in the West Indies, has been a British possession since 1627; it is believed to have been first visited by the Portuguese. The colony has a nominated Legislative Council and a popularly elected Assembly of 24 members. Under a ministerial system of government inaugurated Feb. 1, 1954, the Prime Minister and 4 other members of the Executive Committee (all 5 being members of the Assembly) exercise executive responsibility for most of the departments of government, except defense and foreign affairs.

The island is very densely populated (about 1,400 per sq. mi.). About 77 per cent of the inhabitants are Negro, 5 per cent white and the remainder of mixed blood. Approximately 70 per cent of the total area is cultivated and half of this is devoted to sugar, which is the staple product; there are sugar and molasses plants and several rum distilleries.

BERMUDAS—Status: Colony.

Capital: Hamilton (population 3,500).

Governor: Lt. Gen. Sir John Woodall.

Foreign trade (1956): exports, £511,581; re-exports, £4,154,343; imports, £13,159,853 (53% from the U. S.). Chief domestic exports: pharmaceuticals (42%), concentrated essences.

Agricultural products: lily bulbs, potatoes, vegetables, arrowroot.

The Bermudas comprise an archipelago of about 360 small islands, 580 miles east of North Carolina. The largest is (Great) Bermuda or Main Island. Discovered by Juan Bermudez, a shipwrecked Spaniard, early in the 16th century, the islands were settled in 1612 by an offshoot of the Virginia Company and became a Crown colony in 1684. The Governor is assisted by nominated Executive and Legislative Councils and a popularly elected Assembly of 36 members. In 1940, sites on the islands were leased for 99 years to the U. S. for air and navy bases. Bermuda is also the headquarters of the West Indies and Atlantic Squadron of the Royal Navy. The most important factor in the colony's economy is the tourist trade. The arable land is devoted to horticulture rather than agriculture. The colony is heavily dependent on food imports.

BRITISH GUIANA—Status: Colony.

Capital: Georgetown (population 1956: 96,900).

Governor: Sir Patrick Renison.

Foreign trade (1956): exports (40% to Canada, 32% to Britain); imports (45% from Britain). Chief exports: sugar (44%), bauxite (31%), rice (10%).

Agricultural products: sugar, rice, copra, coffee, fruit.

Minerals: bauxite, gold, diamonds.

Forest products: balata, timber.

The only British possession in South America proper, British Guiana is on the northeastern coast between Venezuela and Surinam (Dutch Guiana). Settled by the Dutch in the 17th century, it was occupied by the British in 1796 and ceded to them at the end of the Napoleonic wars. Behind the low plain which contains the farm area is a higher area containing forest and mineral resources. A new Constitution inaugurated Apr. 1, 1953, provided for a bicameral Legislature, with a lower house largely elected under universal adult suffrage, and an Executive Council with a majority of ministers drawn from the lower house on whose advice the Crown-appointed Governor was bound to act. Following charges of Communist infiltration into the government, British military and naval reinforcements were dispatched to the colony; and on Oct. 9, 1953, the Constitution was suspended.

Forest resources, mostly unexploited, have been estimated at about 40,000,000,000 cubic feet of merchantable timber.

BRITISH HONDURAS—Status: Colony.

Capital: Belize (pop. 1956: 28,500).

Governor: Sir Collin Thornley.

Chief exports (1956): mahogany (24%), pine.

Agricultural products: bananas, sugar cane, citrus fruits.

Forest products: cedar lumber and logs, mahogany lumber, logs, pine lumber, chicle.

British Honduras is bounded on the north by Mexico and on the west and south by Guatemala. It was settled in 1662 by woodcutters from Jamaica. An irregular form of local government continued until 1871, when it became a Crown colony; it was separated from Jamaica in 1884. The Governor is assisted by an Executive Council and by a partially elected Legislative Assembly.

The colony's economy is dependent upon timber and other forest exports. Agriculture has never been adequately developed.

Canada

(Member of Commonwealth of Nations)

Area (land only): 3,619,616 square miles.*

Population (1958): 17,048,000 (1951:

British 48%; French 31%; German 4%; Ukrainian 3%; others 14%).

Density per square mile: 4.7.

Ruler: Queen Elizabeth II.

Governor General: George P. Vanier.

Prime Minister: John Diefenbaker

Principal cities (census 1956): Montreal, 1,109,439 (seaport); Toronto, 667,706 (manufacturing center); Vancouver, 365,844 (Pacific seaport); Winnipeg, 255,093 (grain); Hamilton, 239,625 (iron and steel); Edmonton, 226,002 (petroleum); Ottawa, 222,129 (capital); Calgary, 181,780 (farming); Quebec, 170,703 (seaport); Windsor, 121,980 (automobiles).

Monetary unit: Canadian dollar.

Religions (census 1951): Roman Catholic 43%; United Church 20%; Anglican 15%; Presbyterian 6%; Baptist 4%; others 12%.

* Total area, including water: 3,845,774 square miles.

STATUS IN THE WORLD TODAY

Canada, like the United States, has emerged from its pre-war isolation and, no longer a small power, has become an extremely active member of the group of Free World nations. Since 1945 the cornerstone of its foreign policy has been support of the U.N. In world politics it moves in three areas: the Commonwealth, NATO, and the Americas.

From the Canadian point of view, the Commonwealth maintains a bridge to Asia and Africa from the Western world and also lessens Canadian dependence upon the United States. NATO affords a perfect framework in which to use Canada's relatively small population and relatively great resources in conjunction with those of

both the United Kingdom and the United States. It also, by means of its European members, gives Canada associates whose members do something to offset the power of the two great members. And in the Americas, with the possibility of attack on North America across the Arctic, Canada and the United States have set up a Permanent Joint Defense Committee. This has brought about the construction of the Distant Early Warning (DEW) line of radar installations and the creation of the North American Air Defense command (NORAD).

Canadian membership in the U.N., and on its Security Council, has been marked by a quickness to attempt to bring disputes into the hands of the U.N. Its action in calling for intervention by the U.N. in the dispute between Nationalist and Red China over Quemoy and Matsu islands is an example of Canada's preference for action by the U.N. instead of action by one or more of the great powers. At the time of the attack on Suez, Canada's reaction was to attempt to restore peace and to preserve the Commonwealth, whose Asian members were overwhelmingly on the side of Egypt. Its actions procured first the dispatch of Mr. Hammarskjöld to Egypt and then the provision of the United Nations Emergency Force to restore the frontiers on which the fighting began and to set a screen between the belligerents.

In the recent Canadian elections, there were distinct anti-American overtones. The amount of American capital investment, the control of American branch factories by American head offices and the excess of American imports over Canadian exports to the United States are a matter of concern to many Canadians who are not necessarily anti-American in sentiment. They merely wish to insure Canadian control of the country's economic development by a judicious diversification of foreign interests in Canada and of Canadian external trade. A desire to solve some of these differences prompted the visit of President Eisenhower to Ottawa in July, 1958, and the setting up of joint committees of the American and Canadian cabinets and of Congress and Parliament. If these bodies can function, they may contribute not merely to a better understanding between the governments and legislatures of the two countries, but also their more effective co-operation in continental defense and in world politics.

HISTORY. The Norse explorer Lief Ericsson probably reached the shores of Canada (Labrador or Nova Scotia) in A.D. 1000, but the history of the white man in the country actually began in 1497, when John

PROVINCES AND TERRITORIES

Province	Land area, sq. mi.	Population (Census 1956)
Alberta	248,800	1,123,116
British Columbia	359,279	1,398,464
Manitoba	219,723	850,040
New Brunswick	27,473	554,616
Newfoundland	152,734	415,074
Nova Scotia	20,743	694,717
Ontario	363,282	5,404,933
Prince Edward Island	2,184	99,285
Quebec	523,860	4,628,378
Saskatchewan	237,975	880,665
Territories		
Northwest Territories	1,258,217	19,313
Yukon	205,346	12,190

Provinces	Capital	Premier, 1959
Alberta	Edmonton	Ernest C. Manning ¹
British Columbia	Victoria	William Bennett ¹
Manitoba	Winnipeg	Duff Roblin ³
New Brunswick	Fredericton	Hugh J. Flemming ³
Newfoundland	St. John's	Joseph Smallwood ⁴
Nova Scotia	Halifax	Robert L. Stanfield ³
Ontario	Toronto	Leslie Frost ³
Prince Edward Island	Charlottetown	A. W. Matheson ⁴
Quebec	Quebec	Paul Sauvé ⁵
Saskatchewan	Regina	T. C. Douglas ³
Territories		
Northwest Territories	Ottawa	R. G. Robertson [*]
Yukon	Whitehorse	F. H. Collins [*]

¹ Social Credit; ² Liberal-Progressive; ³ Progressive-Conservative; ⁴ Liberal; ⁵ Union Nationale; ^{*} Co-operative Commonwealth Federation.

^{*} Commissioner.

Cabot, an Italian in the service of Henry VII of England, reached the shore of Newfoundland or Nova Scotia. Canada was taken for France in 1534 by Jacques Cartier. The actual settlement of New France, as it was then called, began in 1604 at Port Royal in what is now Nova Scotia; in 1608 Quebec was founded. France's colonization efforts were not very successful, but French explorers by the end of the seventeenth century had penetrated beyond the Great Lakes to the western prairies and south along the Mississippi to the Gulf of Mexico. Meanwhile, the English Hudson's Bay Company had been established in 1670. Because of the valuable fisheries and fur trade, a conflict developed between the French and English; in 1713, Newfoundland, Hudson Bay, and Nova Scotia (Acadia) were lost to England.

During the Seven Years' War (1756-63), England extended its conquest, and the British general, Wolfe, won his famous victory over Montcalm outside Quebec (Sept. 13, 1759). The Treaty of Paris (1763) put Canada under English control.

At that time the population of Canada was almost entirely French, but in the next few decades thousands of British colonists emigrated to Canada from the British Isles and from the American colonies. In 1849 the right of Canada to self-government was recognized. By the British North America Act of 1867, the Dominion of Canada was created through the confederation of Upper and Lower Canada, Nova Scotia, and New Brunswick. Prince Edward Island joined the Dominion in 1873. In 1869 Canada had purchased from the Hudson's Bay Company the vast middle west (Rupert's Land) from which the provinces of Manitoba (1870), Alberta, and Saskatchewan (1905) were later formed. In 1871 British Columbia joined the Dominion. The country was linked from coast to coast in 1885 by the Canadian Pacific Railway.

During the formative years between 1867 and 1896, the Conservative party led by Sir John A. Macdonald governed the country, except during the years 1873-78. In 1896 the Liberal party took over and under Sir Wilfrid Laurier, an eminent French Canadian, ruled until 1911. In World War I, more than 500,000 Canadian soldiers fought for the Allied cause. After the Treaty of Versailles, Canada, a full-fledged nation, was admitted to the League of Nations and appointed its own representatives in foreign countries. By the Statute of Westminster (1931) the British Dominions, including Canada, were formally declared to be partner nations with Britain, "equal in status, in no way subordinate to each other," and bound together only by allegiance to a common Crown.

Newfoundland became Canada's tenth province on March 31, 1949, following a plebiscite held July 22, 1948, in which the people voted by a narrow margin to unite with Canada.

GOVERNMENT. Canada, a self-governing member of the Commonwealth of Nations, is a federal union of ten provinces whose powers are laid down in the British North America Act of 1867. The executive powers nominally rest in the hands of the Governor General, who represents the Queen and is appointed by her upon the recommendation of the Canadian government.

Actually the Governor General acts only with the advice of the Canadian Prime Minister and the members of the Cabinet, who at the same time sit in the federal Parliament. The Parliament has two houses: a Senate numbering 102 members appointed for life, and a House of Com-

mons numbering 265 members apportioned according to provincial population. Elections are held at least every five years or whenever the party in power is voted down in the House of Commons or considers it expedient to appeal to the people. The Prime Minister is the leader of the majority party in the House of Commons. Laws must be passed by both houses of Parliament and signed by the Governor General in the Queen's name.

The ten provincial governments are nominally headed by Lieutenant Governors appointed by the federal government, but the executive power in each actually is vested in a Cabinet headed by a Prime Minister, who is leader of the majority party. In nine of the ten provinces the legislature is composed of a one-house assembly elected by the people for four years. In Quebec there is a second chamber, the Legislative Council, composed of nominees of the Provincial Government.

Judicial System. The judicial system consists of a Supreme Court in Ottawa (established in 1875), with appellate jurisdiction, and a Supreme Court in each province as well as county courts with limited jurisdiction in most of the provinces. The Governor General in Council appoints the judges of these courts.

ECONOMIC CONDITIONS. Agriculture. Agriculture, including horticulture, fruit-growing, and the raising of stock and poultry, is the largest single industry. Canada is one of the world's greatest wheat-exporting countries; production is concentrated in Manitoba, Saskatchewan, and Alberta.

Stock raising and dairy farming have grown greatly since 1920. Ontario and Quebec are the most important dairying prov-

inces. On June 1, 1958, Canada had 11,001,000 cattle, 6,164,000 hogs, 1,696,000 sheep, and 675,000 horses.

Industry. Canadian manufactures rely mainly on domestic raw materials; growing industries which depend largely on materials imported in a raw or semi-finished state include the manufacture of automobiles, sugar, and rubber goods as well as the iron and steel industry in Nova Scotia, Quebec, and Ontario. The latter two provinces account for more than 80% of all manufactures. The abundance of cheap water power is one of the chief factors in the growth of Canadian industry. In 1956 there were 37,428 plants employing 1,353,020 persons. The most important industries in terms of output were pulp and paper, nonferrous-metals smelting and refining, petroleum products, meatpacking, motor vehicles, sawmill products.

Trade. Canada is one of the great trading nations of the world. The bulk of its foreign commerce is in raw or semi-finished products.

In 1957, Canada's principal customers were the United States (59%), Britain (15%), Western Germany (3.1%), Japan (2.9%), and the Netherlands (1.4%). Leading suppliers were the United States (71%), Britain (9.3%), Venezuela (4.4%), Western Germany (1.7%), and Japan (1.1%). Leading exports were newsprint (15%), wheat (8%), wood pulp (6.0%), planks and boards (5.8%), and nickel (5.1%). Leading imports in 1957 were machinery (non-farm) (11%), automobile parts (5.4%), crude petroleum (4.6%), rolling mill products (steel) (3.9%), farm implements and machinery (3.6%), and petroleum products (3%).

Communications. Because Canada's ex-

Canadian Governors General and Prime Ministers Since 1867

Term of office	Governor General	Term	Prime Minister	Party
1867-1869	Viscount Monck	1867-1873	Sir John A. Macdonald	Conservative
1869-1872	Baron Lisgar	1873-1878	Alexander Mackenzie	Liberal
1872-1878	Earl of Dufferin	1878-1891	Sir John A. Macdonald	Conservative
1878-1883	Marquess of Lorne	1891-1892	Sir John J. Abbot	Conservative
1883-1888	Marquess of Lansdowne	1892-1894	Sir John S. D. Thompson	Conservative
1888-1893	Baron Stanley	1894-1896	Sir Mackenzie Bowell	Conservative
1893-1898	Earl of Aberdeen	1896(2 mos)	Sir Charles Tupper	Conservative
1898-1904	Earl of Minto	1896-1911	Sir Wilfrid Laurier	Liberal
1904-1911	Earl Grey	1911-1917	Sir Robert L. Borden	Conservative
1911-1916	Duke of Connaught	1917-1920	Sir Robert L. Borden	Unionist
1916-1921	Duke of Devonshire	1920-1921	Arthur Meighen	Unionist-National
1921-1926	Viscount Byng			Conservative
1926-1931	Viscount Willingdon	1921-1926	W. L. Mackenzie King	Liberal
1931-1935	Earl of Bessborough	1926(3 mos)	Arthur Meighen	Conservative
1935-1940	Baron Tweedsmuir	1926-1930	W. L. Mackenzie King	Liberal
1940-1946	Earl of Athlone	1930-1935	Richard B. Bennett	Conservative
1946-1952	Viscount Alexander	1935-1948	W. L. Mackenzie King	Liberal
1952-1959	Vincent Massey	1948-1957	Louis S. St. Laurent	Liberal
1959-	George P. Vanier	1957-	John Diefenbaker	Conservative

ports are to a large extent bulky raw materials, cheap water transportation is essential. The country's system of canals, especially those connecting the Great Lakes, forms an integral part of the inland communications system.

NATURAL FEATURES AND RESOURCES. Covering most of the northern part of the North American continent and with an area larger than that of the United States, Canada's topography is extremely diversified. The northeastern region, including most of Quebec, northern Ontario and Manitoba, and the Northwest Territories, with Hudson Bay in the center, is an important source of minerals, wood pulp, and water power. In the east the mountainous maritime provinces have an irregular coast line on the Gulf of St. Lawrence and the Atlantic. The St. Lawrence plain, covering most of southern Quebec and Ontario, and the interior continental plain, covering southern Manitoba and Saskatchewan and most of Alberta, are the principal cultivable areas. They are separated by a forested plateau rising from Lakes Superior and Huron. Westward toward the Pacific, most of British Columbia, Yukon, and part of western Alberta are covered by parallel mountain ranges including the Rockies. The Pacific border of the coast range is ragged with fiords and channels. The highest point in Canada is Mt. Logan, 19,850 ft., located in the Yukon.

Canada has an abundance of large and small lakes. In addition to the Great Lakes on the United States border, there are nine others which are more than 100 miles long and 35 which are more than 50 miles long.

The two principal river systems are the Mackenzie and the St. Lawrence. The St. Lawrence with its tributaries is navigable for over 1,900 miles and is the commercial artery of eastern Canada.

As most of the Canadian rivers have waterfalls on their courses they are of considerable importance as sources of power.

Minerals. Canada's mineral resources are both rich and varied. Mining production in 1956 was valued at \$2,067,699,096. Metals come mainly from two widely separated regions, the mountain ranges of the Pacific coast and the province of Ontario. Copper ore also exists in Quebec, Manitoba, and Newfoundland. Production of petroleum centers in Alberta. There are deposits of uranium in the Northwest Territories.

Forests and Fisheries. The total area of land covered by forests is estimated at 1,300,000 square miles, of which only 435,000 are productive and accessible. The manufacture of pulp and paper is one of the leading industries.

Fishing, Canada's oldest industry, is carried on along the Atlantic and Pacific coasts and on the inland lakes.

FALKLAND ISLANDS AND DEPENDENCIES—Status: Crown Colony.

Governor: Edwin P. Arrowsmith.

Capital: Stanley (population 1,135).

This sparsely inhabited Crown colony consists of a group of islands in the south Atlantic about 250 miles east of the South American mainland. Dependencies include all islands and Antarctic territory between 20° and 50° w. long., south of 50° s. lat., and between 50° and 80° w. long., south of 58° s. lat. The chief industry is sheep raising, and apart from the production of wool, hides and skins, and tallow, there are no known resources. The whaling industry is carried on from South Georgia Island.

The islands were discovered by John Davis in 1592.

JAMAICA AND DEPENDENCIES—Status: Colony.

Capital: Kingston (population 145,000).

Governor: Sir Kenneth Blackburne.

Chief Minister: Norman W. Manley.

Foreign trade (1956)*: exports (49% to Britain); imports (37% from Britain). Chief exports: sugar and preparations (34%), bananas (14%), bauxite (12%). Agricultural products: sugar, rum, bananas, citrus fruits, ginger, coffee, pimento.

Mineral: bauxite.

* Excluding dependencies.

Jamaica, the largest island in the British West Indies (4,470 sq. mi.), is eighty miles south of the eastern end of Cuba. Its island dependencies include the Turks and Caicos Islands (about 600 mi. N.E.), Cayman Islands (about 300 mi. N.W.) and two uninhabited cays. It was discovered by Columbus in 1494 and remained in Spanish possession until 1655, when it was taken by the British. According to the Constitution of Nov. 20, 1944, as amended in 1953, the Governor is assisted by a House of Representatives; a Legislative Council (upper house); and an Executive Council of whom the Chief Minister is appointed by the Governor subject to approval of the House.

Sites were leased for 99 years to the U. S. in 1940 for naval and air bases.

The colony's economy depends on agriculture, and about 200,000 acres are under cultivation. Sugar took the place of bananas as the chief crop during World War II. Jamaica is virtually the sole source of pimento.

LEEWARD ISLANDS—Status: Group of colonies.

Seat of governor: St. John's (Antigua) (population 11,000).

Governor: Alexander T. Williams.

Chief export: sugar.

Agricultural products: sugar, cotton, coconuts, citrus fruits, tobacco.

The Leeward Islands, lying southeast of Puerto Rico, are a group of four colonies—

Antigua (108 sq. mi.) and dependencies (63 sq. mi.); Virgin Islands (87 sq. mi.); St. Kitts (68 sq. mi.) and Nevis (50 sq. mi.), and dependency (34 sq. mi.); and Montserrat (33 sq. mi.). They have a common governor but their governments are otherwise separate.

In 1940, the United States acquired a 99-year lease on sites for a naval and air base on Antigua. The islands are agricultural.

TRINIDAD AND TOBAGO—Status: Colony.

Capital: Port of Spain (population 120,000).

Governor: Sir Edward Beetham.

Chief Minister: Eric Williams.

Foreign trade (1956): exports (35% to Britain); imports (35% from Britain). Chief exports: crude petroleum and products (66%), sugar (8%), cacao (3%).

Agricultural products: raw sugar, cacao, coconuts, citrus fruit.

Manufactures: petroleum products
Minerals: crude petroleum, asphalt.

The islands of Trinidad and Tobago are sixteen and twenty-one miles, respectively, off Venezuela just north of the Orinoco delta. Both were discovered by Columbus in 1498, and remained Spanish possessions until 1797, when the British took them. They are administered by a Governor, assisted by an Executive Council and a Legislative Council, popularly elected. In 1941 the United States was granted 99-year leases on the islands for naval and air bases.

The soil is rich for the growing of tropical products; sugar and cacao are the principal crops. Trinidad is one of the leading oil producers of the Commonwealth, and the world's most notable source of asphalt, found in Pitch Lake, thirty-eight miles southeast of Port of Spain.

WEST INDIES FEDERATION: established Jan. 3, 1958, it includes Antigua, Barbados, Dominica, Grenada, Jamaica, Montserrat, Trinidad and Tobago, St. Lucia, St. Vincent, and St. Kitts-Nevis. It expects to attain Commonwealth status within five years. Prime Minister Herbert Adams was chosen April 18, 1958.

In the March, 1958, elections, Federal Labor (Socialist) party obtained twenty-three seats, Democratic Labor (Anti-Socialist) party twenty-one, Barbados National (pro-Socialist) one in the new West Indies Parliament.

WINDWARD ISLANDS—Status: Group of colonies.

Seat of governor: St. George's (Grenada) (population 23,332).

Governor: Sir Colville M. Deverell.

Agricultural products: arrowroot (St. Vincent), nutmeg (Grenada), mace (Grenada), cacao.

These islands, four in number, form the southern portion of the Lesser Antilles in the Caribbean; they extend approximately 250 miles from the French colony of Guadeloupe on the north to the British colony of Trinidad on the south. Their total area of about 820 square miles divides as follows: Dominica, 304; St. Lucia, 233; St. Vincent, 150; Grenada, 133. The four colonies are not federated and have no common legislature or laws, although they do have a common Governor.

Agriculture is the only industry. St. Vincent has a virtual monopoly on the world supply of arrowroot.

ASIA

ADEN—Status: Colony and Protectorate.

Governor: Sir William Luce.

Foreign trade: exports (16% to Britain); imports (30% from Kuwait).

Manufactures: crude petroleum refined.

The British colony and protectorate of Aden is situated on the volcanic southern tip of the Arabian peninsula, along the Gulf of Aden. The colony (port) of Aden was annexed to Britain in 1839 and was part of the Bombay Presidency until 1932, when it became a separate province with the Chief Commissioner responsible to the Indian government. In 1937 it was transferred from Indian to Imperial control as a Crown colony. It is administered by a Governor and Commander in Chief aided by an Executive Council and a Legislative Council. The 20-odd Sultans who rule their respective territories in the protectorate are responsible to him.

Aden colony is essentially a transshipment point and bunkering station and is also the commercial center for the Yemen and the African coast opposite. Aden airport is a station on the Khartoum-Karachi air route. Agriculture is unimportant except for some coffee and tobacco, and except for the large petroleum refinery of the British Petroleum Co. Ltd. (formerly Anglo-Iranian Oil Co.), which went into operation in 1954, manufacturing activity is limited to salt, cigarettes, and dhows.

BORNEO

COLONY OF NORTH BORNEO—Status: Colony.

Capital: Jesselton (population 11,704).

Governor: Sir Evelyn Turnbull.

Foreign trade (1956)*: exports (23% to Britain); imports (24% from Britain). Chief exports: rubber (33%), timber (22%), copra (19%).

Agricultural products: rubber, rice, copra.

Forest products: timber, cutch, rattans.

* Excluding transit trade.

The Colony of North Borneo constituting the extreme northern portion of the island

COLOMBO PLAN

The Colombo Plan, started among Commonwealth countries of Southeast Asia in 1950, focuses attention on recipient rather than donor. Its objective is to improve living standards of economically underdeveloped countries by coordinating their approach to foreign economic aid. Substantial contributions have been made by the U. S., the U. K., Australia, New Zealand and the International Bank for Reconstruction and Development.

of Borneo, consists largely of highlands and occasional open valleys and plateaus. The territory was a British protectorate administered under a royal charter by the British North Borneo Company from 1881 until July 15, 1946, when it assumed the status of a Crown colony. It was occupied by Japanese troops from 1942 until 1945. Labuan (pop. 9,000; area, 35 sq. mi.), a small island off the North Borneo coast, was transferred from the jurisdiction of the Straits Settlements to that of North Borneo in 1946.

The population is comprised largely of aboriginal tribesmen living on a very primitive level of culture and social organization. In 1951, 72.7% of the population was native, 22.3% Chinese; there were 1,213 Europeans. Mineral resources are believed to be considerable, but the colony's income is based on agricultural and jungle produce.

BRUNEI—Status: Protectorate.
Capital: Brunei (population 16,000).
Sultan: Omar Ali Saifuddin.
British Resident: J. O. Gilbert.
Foreign trade: Chief export: petroleum (99%).
Agricultural products: rice, rubber.
Mineral: petroleum.

Brunei lies on the northwestern coast of Borneo, entirely surrounded by Sarawak. It was placed under British protection in 1888, and in 1906 a treaty was concluded whereby the native Sultan yielded administration of the state to a British Resident. The Governor of Sarawak was appointed High Commissioner for Brunei in 1948. Japanese occupied Brunei in 1942-45.

Most of the inhabitants are Malays and Borneans; in 1955, 19% were Chinese and only 1.5% European. The bulk of the population lives in and around the capital, situated on the Brunei River 9 miles from its mouth. The interior is largely forested and contains rich timber. All petroleum is exported to Sarawak for refining.

SARAWAK—Status: Colony.
Capital: Kuching (population 56,000).
Governor: Sir Anthony F. Abell.
Foreign trade. Chief exports: petroleum

and products (73%), rubber (14%), pepper (5%).

Agricultural products: rubber, pepper, copra, rice.

Minerals: petroleum, gold, silver, coal.

Sarawak extends along the northwestern coast of Borneo for about 500 miles. In 1841 part of the present territory was granted by the Sultan of Brunei to Sir James Brooke. The state, enlarged by additional concessions made between 1861 and 1905, continued to be ruled by members of the Brooke family until the Japanese occupation in Dec. 1941. A British protectorate since 1888, Sarawak became a Crown colony July 15, 1946, through agreement between the British government and the then ruling Rajah, Sir Charles Vyner Brooke.

The colony is mountainous and well watered; inland communication is largely by water. Most of the inhabitants are Malays, Dyaks, and Chinese. The most important mineral is petroleum, which was discovered at Miri in 1909 and subsequently worked by Sarawak Oilfields, Ltd. There are also important forest resources.

Ceylon

(Member of Commonwealth of Nations)

Area: 25,332 square miles.

Population (est. July 1, 1957): 9,165,000 (1953: Sinhalese, 69%; Tamil, 21%; Moors, 6%; Burghers and Eurasians, .5%; Europeans [6,909] and others, 3.5%).

Density per square mile: 361.8.

Ruler: Queen Elizabeth II.

Governor General: Sir Oliver Goonetilleke.

Prime Minister: Wijayananda Dahanayake.

Principal cities (census 1953): Colombo, 426,127 (capital); Dehiwala—Mt. Lavinia, 78,213 (suburb of Colombo).

Monetary unit: Ceylonese rupee.

Languages: English, Sinhalese, Tamil.

Religious (est.): Buddhist, 61%; Hindu, 22%; Moslem, 7%; Christian (mainly Roman Catholic), 9%; others, 1%.

STATUS IN THE WORLD TODAY

A self-governing dominion in the British Commonwealth of nations, Ceylon at first was one of the most genuinely pro-Western nations among the newly independent nations of Asia. But when it could not sell rubber and other exports in Western markets at prices which would pay for the necessary imports of foodstuffs, it began to shift toward a neutralist policy which led to the first (in 1952) of a series of trade agreements with the Soviet-Sino bloc providing for the exchange of rubber for rice.

Ceylon depends upon three products—tea, rubber, and coconuts—to finance its

food imports, since domestic production provides less than half the minimum needs. But rubber and coconut prices on the world market fluctuate more widely than those of almost any other products while tea, more stable, has recently had price variations ranging up to 11%. Thus, Ceylon cannot control its livelihood. To diversify and develop its economy, the nation adopted in 1947 the first of two Six-Year Plans to develop new crops and expand secondary industry. When results failed to measure up to the goals set, Ceylon sought the help of an International Bank mission in 1951 to formulate a more comprehensive Six-Year Investment Program for 1954-1960, calling for a total expenditure of \$531 million.

Faced with a dense population to add to its economic difficulties, Ceylon also has a serious ethnic problem. More than 70% of the population are Sinhalese, principally Buddhists. Another 21% are Tamil-speaking Hindus of South Indian extraction. More than half of these are so-called Ceylon Tamils, descendants of eleventh-century invaders, who enjoy full legal equality with the Sinhalese. The rest, Indian Tamils, were brought over as laborers by the British or are more recent arrivals. They are not especially wanted by the Sinhalese and only half of them are eligible for citizenship. The Sinhalese-Tamil linguistic-religious conflict erupted into communal rioting in May and June of 1958 in which hundreds of lives were lost. As a result of the unrest, the government banned two extreme communalist parties, one Tamil and one Sinhalese.

HISTORY AND GOVERNMENT. Known to the Greeks and Romans as Taprobane and to Mohammedan seamen as Serendib, Ceylon is reputed to have been invaded from India in 504 B.C. by Vijaya, the first Sinhalese King. Buddhism was introduced in the third century B.C. In subsequent centuries the island was invaded and occupied several times by Indian princes.

Ceylon became a full-fledged, self-governing dominion on Feb. 4, 1948, with Stephen Senanayake as Prime Minister. On his death, Mar. 22, 1952, his son Dudley took office. The latter resigned on Oct. 12, 1953, and was succeeded by Sir John Kotelawala. The leftist People's United Front won the April, 1956, elections and its leader, S.W.R.D. Bandaranaike, formed a new government on Apr. 12. Bandaranaike was assassinated Sept. 26, 1959, and Wijayananda Dahanayake became Prime Minister.

Under the 1946 Constitution, Ceylon's government is headed by the Crown-appointed Governor-General, who is advised by a Council of Ministers headed by the

Prime Minister. The bicameral Parliament consists of a House of Representatives of 101 members, and a Senate of thirty members. Half of the senate is nominated by the Cabinet and the other half elected by the House of Representatives.

ECONOMIC CONDITIONS. Ceylon is heavily dependent on food imports, particularly rice, the staple food. A large part of the cultivated land (25% of the total area) is devoted to the chief export crops—tea, rubber, and coconut products, all of which are grown for the most part on plantations. Other crops include rice, fruits, cinnamon, and citronella.

Leading exports in 1957 were tea (61%), rubber (18%), and coconut oil (9%). Leading customers were Britain (29%), sterling area (20%), the United States and Canada (14%), and EPU countries (7%); leading suppliers, Britain (20%), India (13%), other sterling area (22%), continental EPU countries (10%), and U. S. and Canada (5%).

NATURAL FEATURES AND RESOURCES. Most of the island is flat, but mountains in the south rise to 8,000 feet. The island extends to a maximum of 270 miles north and south, and 140 miles east and west.

Mineral resources include graphite (plumbago), gem stones, mica, magnesite, and vanadium; uranium deposits have been reported.

CYPRUS—Status: Independent Republic.

Capital: Nicosia (pop. 1956: 81,700).

Governor: Sir Hugh Foot.

Minister of Foreign Affairs: Archbishop Makarios.

Foreign trade (1956): exports (34% to western Germany); imports (45% from Britain). Chief exports: cupreous concentrates (32%), pyrites (27%).

Agricultural products: barley, wheat, potatoes, wine, fruit.

Minerals: copper ore (concentrates), pyrite ore.

STATUS IN THE WORLD TODAY

Demands for self-determination and union with Greece (*enosis*), which had been accompanied by terrorism for several years, finally ended in February, 1959, when Britain, Turkey, Greece, and representatives of the Turkish and Greek communities in Cyprus signed an agreement providing for the establishment of an independent Cypriote Republic. A transitional cabinet of 9 ministers, 6 Greek Cypriotes and 3 Turkish Cypriotes was nominated by the British Governor to assist him in the transitional stages leading to complete independence of the island.

On the international scene the Cyprus dispute represented a major sore within the NATO community. Principally because of the Cyprus issue, relations between

England and Greece and also those between Greece and Turkey had become very strained. The political repercussions of the Cyprus question were also of major concern to the United States.

Cyprus, third largest island in the Mediterranean, is roughly equidistant from Asia Minor to the north and Syria to the east. The site of early Phoenician and Greek colonies, it passed in 1571 from the rule of Venice to that of the Ottoman Empire, under which it remained until 1878, when it was ceded to Great Britain for administrative purposes. On the outbreak of hostilities with Turkey in World War I (Nov. 5, 1914), the island was formally annexed to Great Britain.

The people are mainly Greeks (80.8% by the last census—1946) and Turks (17.7%), although there is an Armenian colony and a small Latin colony. More than 80 per cent of the population is Christian. Agriculture is the principal industry. Sponge fishing is also important, as well as copper mining.

HONG KONG—Status: Colony.

Capital: Victoria (population 1,000,000).

Governor: Sir Robert Blank.

Foreign trade: Chief export: textiles.

Agricultural products: rice, sugar cane.

Major industries: shipbuilding, rope making, cement, sugar refining, textiles.

The colony of Hong Kong comprises the island of Hong Kong (32 sq. mi.), Stonecutters' Island, and the Kowloon peninsula and the New Territories on the adjoining mainland. The island of Hong Kong, located at the mouth of the Canton River about ninety miles southeast of Canton, was ceded to Britain in 1841.

Stonecutters' Island and Kowloon were annexed in 1860, and the New Territories, which are mainly agricultural lands, were leased from China in 1898 for ninety-nine years. Hong Kong was attacked by Japanese troops Dec. 7, 1941, and surrendered the following Christmas Day. It remained under the occupation of the Japanese until September, 1945.

Possessing an excellent natural harbor seventeen miles in extent, the only safe deep-sea anchorage between Shanghai and Indo-China, Hong Kong is the entrepôt for trade throughout southern China and the western Pacific.

The cities of Victoria and Kowloon contain the greater part of the population, which is overwhelmingly Chinese. Besides those Chinese engaged in agriculture or industry, a large population lives in sampans or junks either in Victoria Harbour or neighboring bays, supporting itself by fishing or by performing labor on the wharves.

India (Republic)

(Member of Commonwealth of Nations)

Area: 1,269,640 square miles.*

Population (est. 1958): 397,540,000.* (Hindu, 85%; Moslem, 9.9%; Christian, 2.3%; Sikh, 1.7%; others [Jain, Buddhist, Zoroastrian, Jewish, etc.], 1.1%).

Density per square mile: 313.1.

President: Rajendra Prasad.

Prime Minister: Pandit Jawaharlal Nehru.

Principal cities (census 1951): Bombay, 2,839,270 (seaport; cotton and textiles); Calcutta, 2,548,677 (chief port); Madras, 1,416,056 (seaport); Hyderabad, 1,085,722 (trade center); Delhi, 914,973 (manufacturing); Ahmedabad, 788,333 (manufacturing); Bangalore, 778,977 (manufacturing); Kanpur (Cawnpore), 705,383 (textiles); New Delhi, 276,314 (capital).

Monetary unit: Rupee.

Principal languages: Hindi (official), English†, Bengali, Assamese, Gujarati, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu, Urdu.

* Including Jammu and Kashmir; status in dispute with Pakistan. † To be used for all official purposes until 1965.

STATUS IN THE WORLD TODAY

India, a sovereign democratic republic which still retains membership in the British Commonwealth of Nations, is the leader of the neutralist bloc of nations in the current cold war. One reason is the determination of Prime Minister Jawaharlal Nehru that India should have the position and play the role of a great power in world affairs. A second is that through mediation and compromise it hopes to become a third force or bridge between the East and the West power blocs. A third factor is invariable opposition, inherited from colonial days, to imperialism, but usually only of the Western variety, and a consequent innate suspicion of the West.

Thus India was among the leaders who demanded that France and Great Britain obey the United Nations mandate to withdraw from the Suez Canal during the 1956 attack, although the Indian government itself has refused to obey U. N. decisions in its dispute with Pakistan over Kashmir. Only belatedly, and in part forced by domestic public opinion as much as by loss of face in the non-Soviet world, did official India also speak out against the brutal Soviet oppression of the Hungarian revolt in the same year. Although it had agreed in June, 1954, with Communist China on the "five principles of peaceful coexistence," its reaction when Red China violated these principles in overthrowing the autonomous government of Tibet in 1959 was one of comparative mildness, even though Peiping charged that a Tibetan revolt had been planned in India. It did, however, give asylum to the

deposed Dalai Lama. Like neighboring Burma, it faces the prospect of frontier troubles with its huge northern neighbor. Parts of India are already shown as belonging to Red China on maps which have been published in Peiping.

But because of the abject poverty which exists in India, the average illiterate Indian is too much concerned with eking out a mere existence even to think about his country's foreign policies. And to this problem of mass poverty, as India's Planning Commission described it, the government has turned most of its attention. Although like all other undeveloped countries India was fascinated by steel mills and power plants as symbols of industrial development, the core of its first Five-Year Program, started April 1, 1951, was agriculture, irrigation, land reclamation, and community development. It was in many ways a material success, and was accomplished with Western aid totaling \$625 million. Not until a year before the end of the program did the U.S.S.R. enter the picture with an offer to build and equip a steel mill on terms more favorable than those hitherto secured from the West.

For its second Five-Year Plan, scheduled to end in 1961, allocations to all parts of the economy have been vastly increased and the emphasis upon direct industrialization sharply stepped up. India expected to finance this program mainly from internal resources, but still required \$1,680 millions in external assistance. Most of this sum has been granted from Western sources. The total cost is estimated at \$9,600 millions, or double the amount of the first Plan.

HISTORY. The Aryans or Hindus who invaded India between 2400 and 1500 B.C. from the northwest found a land already

well civilized. Buddhism was founded in the sixth century B.C. and spread through northern India. The first exact date in Indian history is 327 B.C., when Alexander the Great invaded India. Meanwhile India continued to be divided into rival states.

In 1526, Mohammedan invaders founded the great Mogul empire, centered on Delhi, which lasted at least in name until 1857. Akbar the Great (1542-1605) strengthened this empire and became the ruler of a greater portion of India than had ever before acknowledged the suzerainty of one man. The long reign of his great-grandson, Aurangzeb (1658-1707) represents both the culmination of Mogul power and the beginning of its decay.

Vasco da Gama, the Portuguese explorer, visited India first in 1498, and for the next hundred years the Portuguese had a virtual monopoly on trade with the subcontinent. Meanwhile, the English founded the East India Company, which set up its first factory at Surat in 1612 and began expanding its influence, fighting against the Indian rulers and the French, Dutch, and Portuguese traders simultaneously.

Bombay, taken from the Portuguese, became the seat of English rule in 1687. The defeat of French and Moslem armies by Lord Clive in the decade ending in 1760 laid the foundation of the British Empire in India. From then until 1858, when the administration of India was formally transferred to the British Crown following the great mutiny of native troops in 1857, the East India Company was constantly occupied with the suppression of native uprisings and the extension of British rule.

After World War I, in which the Indian states sent more than 1,000,000 troops to fight beside the Allies, Indian nationalist unrest rose to new heights under the leadership of a little Hindu lawyer, Mo-

POLITICAL SUBDIVISIONS OF REPUBLIC OF INDIA, 1959

States	Area, sq. mi. (approx.)	Population, census 1951*	Centrally Administered Territories	Area, sq. mi. (approx.)	Population, census 1951*
Andhra Pradesh...	105,700	31,260,133	Andaman and Nicobar Islands ..	3,215	30,971
Assam	85,062	9,043,707	Delhi	573	1,744,072
Bihar	67,113	38,783,778	Himachal Pradesh	10,922	1,109,466
Bombay	190,668	48,265,221	Laccadive, Minicoy and Amindive Islands	10	21,035
Jammu and Kashmir†	92,780	4,410,000	Manipur	8,629	577,635
Kerala	14,937	13,549,118	Tripura	4,022	639,029
Madhya Pradesh ..	171,300	26,071,637			
Madras	50,174	29,974,936			
Mysore	74,861	19,401,193			
Orissa	60,250	14,645,946			
Punjab	47,062	16,134,890			
Rahasthan	132,098	15,970,774			
Uttar Pradesh	113,423	63,215,742			
West Bengal	33,885	26,302,386			

* Estimated on basis of census where territorial changes in unit have occurred since 1951. † Status in dispute with Pakistan.

bandas K. Gandhi, called Mahatma Gandhi. His tactics, of a politico-religious nature, called for non-violent revolts against British authority. He soon became the leading spirit of the all-India Congress Party, which was the spearhead of Indian revolt against British rule. In 1919 the British gave added responsibility to Indian officials, and by an act passed in 1935 India was given a federal form of government and a measure of self-rule.

During the 1940's the policy of both the wartime coalition government of Britain and later the Labour government envisaged an unpartitioned India as a self-governing federal dominion including both British India and the native states. In 1942, with the Japanese pressing hard on the eastern borders of India, the British war Cabinet decided to send Sir Stafford Cripps to India to try to reach a political settlement with nationalist leaders. The mission failed. Shortly thereafter the Congress Party took the position that the British must quit India. In August 1942, fearing mass civil disobedience, the government of India carried out widespread arrests of Congress leaders, including Gandhi.

Gandhi was released in May, 1944, and other leaders later. Negotiations for a settlement were resumed and they proved fruitless until the British Labour government sent a mission in 1946 which obtained the agreement of the Congress party and Mohammed Ali Jinnah's Moslem League to a long-term plan for a Constitution based on three separate groups of provinces with a minimal center. However, agreement was not reached on an interim government and the Moslem League later reverted to its position of unconditional partition. Finally, in February, 1947, the Labour government announced its determination to transfer power to "responsible Indian hands" by June, 1948, even if a Constitution had not been worked out.

With the appointment at the same time of Lord Mountbatten as Governor-General, events moved swiftly. By early June, 1947, agreement was reached on the partitioning of India along religious lines (a plan previously opposed by the predominant Hindus and by Britain) and on the splitting of the provinces of Bengal and the Punjab, which the Moslems had claimed in their entirety.

The Indian Independence Act, passed quickly by both houses of the British Parliament, received royal assent on July 18, 1947, and on Aug. 15 the Indian Empire, united under British rule for almost a century, passed into history.

GOVERNMENT. India is now a sovereign republic within the Commonwealth of Nations—a status approved by the other Commonwealth nations at London in April, 1949, on the condition that India recognize

the King as head of the Commonwealth. Under the Constitution adopted by the Constituent Assembly on Nov. 26, 1949, India has a parliamentary type of government. The constitutional head of state is the president, who is elected every five years. Dr. Rajendra Prasad has held this office continuously since January 26, 1950. He is advised by a prime minister and cabinet based on a majority of the bicameral parliament, which consists of a Council of States, representing the constituent units of the Republic, and a House of the People, elected every five years by universal adult (21 years) suffrage.

Native States. Most of the 560-odd native states and subdivisions of pre-1947 India acceded to the new nation, and the central government pursued a vigorous policy of integration. This took three forms: (1) merger into adjacent provinces, (2) conversion into centrally administered areas, and (3) grouping into unions of states. Finally, under a controversial reorganization plan effective Nov. 1, 1956, the unions of states were abolished and merged into adjacent states and India became a union of fourteen states and six centrally administered areas.

The status of the large princely state of Jammu and Kashmir on the northwest frontier is in dispute with Pakistan. It is 85 per cent Moslem, but its Hindu ruling prince acceded to India, which took over administration following invasion by Moslem troops in late 1947. The U. N. Security Council voted on April 21, 1948, to hold a plebiscite in the area, but it was never held. The part occupied by India was incorporated into India in Jan. 1957.

ECONOMIC CONDITIONS.

Leading customers in 1957 were Britain (24%), the United States and Canada (21%), and Japan (5%); leading suppliers, Britain (24%), the United States and Canada (17%), and continental EPU countries (25%). Leading exports were tea (19%), jute and bagging (19%), and cotton manufactures. Main imports included petroleum and products, machinery, raw cotton, and rice.

NATURAL FEATURES AND RESOURCES. The Indian republic contains a large part of the great Indo-Gangetic plain which extends from the Bay of Bengal on the east to the Afghan frontier and the Arabian Sea on the west. This plain is the richest and most densely settled part of the subcontinent. Another distinct natural region is the Deccan, a plateau of 2,000 to 3,000 feet elevation, occupying the southern portion of the subcontinent.

Forming a part of the republic are several groups of islands—the Laccadives (fourteen islands) in the Arabian Sea;

the Andamans (204 islands) and the Nicobars (nineteen islands) in the Bay of Bengal.

India's three great river systems, all rising in the Himalayas, have extensive deltas. The Ganges flows south and then east for 1,540 miles across the northern plain to the Bay of Bengal; part of its delta, which begins 220 miles from the sea, is within the republic. The Indus, starting in Tibet, flows northwest for several hundred miles in Kashmir before turning southwest toward the Arabian Sea; it is important for irrigation in Pakistan. The Brahmaputra, also rising in Tibet, flows eastward first through India and then south into Pakistan and the Bay of Bengal.

Minerals. The republic has rich mineral resources. The most valuable is coal, deposited throughout most of the nation.

Assam and the Punjab produce oil. Other minerals include iron ore, monazite, diamonds, magnesite, uranium, zircon, silver, graphite, gypsum, tungsten ore, and sapphires.

Malaya, Federation of

(Member of Commonwealth of Nations)

Area: 50,690 square miles.

Population (est. June 30, 1957): 6,277,000 (1947: Malayan, 49.5%; Chinese, 38.4%; Indian and Pakistani, 10.8%; others, 1.3%).

Density per square mile: 119.5.

Head of State: Sir Abdul Rahman.

Prime Minister: Tengku Abdul Rahman.

Principal cities (census 1957): Kuala Lumpur, 315,040 (capital); George Town, 234,855 (seaport); Ipoh, 125,855 (tin); Kluang, 75,687; Malacca, 69,865 (seaport, rubber, copra).

Monetary unit: Malayan dollar.

Languages: English, Malay, Chinese, Tamil.

Religions: Moslems (predominant), Christian, Buddhist.

STATUS IN THE WORLD TODAY

Despite a clear pro-Western bias and continuing close ties with the British, Malaya has generally pursued a neutralist course and has declined to join the Southeast Asia Treaty Organization. It has followed this policy even though it has been torn by a Communist insurrection since 1948 which, although impossible to suppress completely, has now been reduced to little more than nuisance proportions but still demands large-scale military effort and expense.

Malaya faces a unique racial problem. As a result of indiscriminate immigration in the past, the Malays have become a minority in their own land. Today nearly 40% of the population are Chinese, 12%

are Indians and others. Little progress has yet been made toward integrating the several races into a united Malayan nation. The Malays, easygoing and wedded to their traditional, agrarian way of life, fear and resent the Chinese, who have long since won a dominant position in the commercial life of the country. The ambitious, hardworking Chinese, in turn, are disgruntled over the favored political position which the Malays enjoy under the existing governmental set-up.

While the Federation is relatively well off in comparison with most of its Asian neighbors, the economic situation also holds many incalculable factors. Malaya produces only a third of its food requirements, and its prosperity is dependent upon the fluctuating world market for the country's two major exports, rubber and tin. Thus far relatively little progress has been made toward diversification and industrialization of the economy.

HISTORY AND GOVERNMENT. The Federation of Malaya consists of the states of Johore, Kedah, Kelantan, Negri Sembilan, Pahang, Perak, Perlis, Selangor, and Trengganu, and the former British settlements (crown colonies) of Malacca and Penang. The native states were brought under British administration by a process of commercial and political exploitation in the late nineteenth and early twentieth centuries.

As the result of agreements reached with the British government in 1956 and 1957, the Federation attained full independence within the Commonwealth on August 31, 1957. Sir Abdul Rahman was elected the first head of state, and Tengku Abdul Rahman (no relation) became prime minister.

Under the 1957 constitution Malaya is a sovereign constitutional monarchy within the Commonwealth of Nations, recognizing the Queen as head of the Commonwealth. The head of state is elected by the hereditary rulers of the states from among themselves for a 5-year term. He is advised by the prime minister and his cabinet. Malaya has a bicameral legislature. The Federal Senate is partly appointed by the Head of State to represent minority interests and partly elected by the legislative assembly of the states. The House of Representatives, or Lower House, is made up of 104 elected members.

About 65% of the cultivated area is devoted to rubber, of which Malaya is one of the world's largest producers. Other export crops include coconuts and coconut oil, tea, and pineapples. Production of rice, the principal subsistence crop, falls far short of meeting local requirements.

Leading customers in 1956 were Britain (17%), the United States (15%), and Japan (8%); leading suppliers, Indonesia (28%), Britain (18%), and Thailand (7%). Leading exports in 1955 were rubber (56%) and tin (10%).

Malaya is rich in minerals. Tin, the most important, occurs throughout the country but production is concentrated in Perak and Selangor. Other minerals include iron ore, coal, bauxite, tungsten, and manganese ore.

Pakistan (Republic)

(Member of Commonwealth of Nations)

Area: 364,737 square miles.

Population (estimated 1958): 85,635,000

(Moslem, 86%; Hindu, 13%; others, 1%).

Density per square mile: 218.1.

President: Mohammed Ayub Khan.

Prime Minister: (Post abolished in October, 1958.)

Principal cities (est. 1957): Karachi, 1,500,000 (capital); (census 1951): Lahore, 849,476 (capital, west Pakistan); Dacca, 276,033 (capital, east Pakistan); Hyderabad, 211,801 (trade and rail center); Rawalpindi, 237,219 (military center).

Monetary unit: Pakistani rupee.

Principal languages: Bengali (official), Urdu (official), English*, Hindi, Punjabi.

* To be used for official purposes until 1976.

STATUS IN THE WORLD TODAY

Pakistan, an Islamic republic which is still a member of the British Commonwealth of Nations, is, unlike India, an open supporter of the West. It has joined the Baghdad Pact, is a member of SEATO (Southeast Asia Treaty Organization), and participates regularly in various activities arising from membership in the Commonwealth. It has also associated itself with the Afro-Asian bloc in the U.N. and was a sponsor of the twenty-nine-nation Bandung Conference in April, 1955. Its difficulties with Afghanistan over the border area of "Pushtunistan" have been, in part, smoothed over, as has its argument with India over division of the waters of the Indus River and its tributaries. But it is still embroiled in a bitter conflict with India over Kashmir, which it claims and which India has annexed, even though the dispute is technically before the U.N.

The nation is divided into two unequal parts separated by the 1,000-mile expanse of India: overcrowded East Pakistan with more than half the population and only 15% of the total land area, and West Pakistan, which has dominated the political life of the country since independence in 1947. Unlike most other ex-colonial nations, Pakistan had no prior existence except as fairly well-defined predominantly

Moslem areas within the great Indian subcontinent. Relations with India were also disturbed by savage communal riots between Moslems and Hindus which followed partition, and the vast transfers of population resulting from them.

Pakistan's economic difficulties as a new state have been heightened by internal political instability and the country's feeling that comparatively large defense expenditures (with U.S. military aid) were necessary because of its difficulties with India and Afghanistan. It is now nearing the end of a Five-Year Plan, started in 1955, which will probably not be completed but which has made some progress, particularly in the industrial field. Manufacturing has accounted for a steadily rising share of the national income and in certain consumer articles the country has achieved self-sufficiency and even an export potential. The plan's four objectives are: to raise national income and employment through industry, agriculture, and community development; to improve the balance of payments through raising exports and managing imports; to extend social services; and to pay special attention to some of Pakistan's more depressed areas, especially East Pakistan.

HISTORY AND GOVERNMENT. Pakistan, a self-governing member of the Commonwealth of Nations and one of the two successor states to British India, is the world's largest and most important Moslem state.

The history of Pakistan prior to 1947 is principally that of India. (See India.) Upon the transfer of power on Aug. 15, 1947, Mohammed Ali Jinnah became the first Governor-General; he died on Sept. 11, 1948, and was succeeded by Khwaja Nazimuddin. The latter became Prime Minister upon the assassination of Liaquat Ali Khan, Oct. 16, 1951; he was replaced on Apr. 17, 1953, by Mohammed Ali Chaudry. Mohammed Ali succeeded him on Aug. 11, 1955. Pakistan was proclaimed a republic March 23, 1956, and Gov. Gen. Iskander Mirza was elected Provisional President. H. S. Suhrawardy, the first non-Moslem League Prime Minister, took office Sept. 12, 1956.

Under the Constitution of Feb. 29, 1956, Pakistan is a republic but continues its membership in the Commonwealth of Nations. The President is elected for five years by members of the central and provincial legislatures. The Prime Minister and his Cabinet are named by the President but are collectively responsible to the National Assembly. The Assembly has 300 members, divided equally between East and West Pakistan and directly elected for five years. On October 7, 1958, President Iskander Mirza proclaimed martial law,

suspended the Constitution, dismissed the central and provisional governments, and banned all political parties. But on October 27, 1958, Mirza surrendered his power to General Ayub Khan, who abolished the post of Prime Minister and has been ruling as virtual dictator ever since.

Provinces. Pakistan consists of two provinces—West and East Pakistan—approximately 1,000 miles apart, separated by the republic of India. The province of West Pakistan consists of Sind, Baluchistan, the former North-West Frontier Province, western Punjab, the princely state of Bahawalpur and a few other small native states. The province of East Pakistan consists of eastern Bengal and the Sylhet district of Assam. Pakistan contains large communal minorities of Hindus and Sikhs.

ECONOMIC CONDITIONS. Pakistan, poor in industry and natural resources, is mainly an agricultural nation. Upwards of 45,000,000 acres are under cultivation, almost half of which are irrigated, largely in Sind and west Punjab in western Pakistan. The Punjab contains important wheat-growing areas, and eastern Pakistan is rich in jute, rice, and tea. In 1953-54 there were 6,145,000 sheep, 7,067,000 buffalo, 31,060,000 cattle, 470,000 horses, and (1952) 477,000 camels.

Pakistan is an exporter of agricultural products and an importer of manufactured commodities.

Chief exports in 1957 were jute (49%), raw cotton (21%), tea, wool, and jute manufactures. Leading customers in 1957 were Britain (16%), Japan (12%), the United States (8%), and India (7%); leading suppliers, Britain (19%), Japan (4%), the United States and Canada (30%), EPU countries (20%). Leading imports were machinery, petroleum and products, iron and steel and products, vehicles, and cotton piece goods.

Development of a unified nation is retarded by the fact that communication between east and west Pakistan is possible only through a thousand miles of Indian territory or by a long sea voyage.

Since partition, Pakistan has made much progress toward industrialization. The most important manufacturing area is in the vicinity of Lahore in the Punjab. Industries include cotton ginning, spinning and weaving, jute manufacturing, sugar refining, cement making, flour milling, railway and engineering workshops, and petroleum refining.

NATURAL FEATURES AND RESOURCES. Almost all of Sind and the west Punjab are a continuation of north-central plains leading up to rugged mountains in the north and west which traverse Baluchistan and the North-West Frontier Province. Eastern Pakistan is a low-lying, flat coun-

try with elevation averaging not more than 600 feet above sea level.

Mineral resources are limited to petroleum, coal, lignite, chromite, and gypsum. Vast quantities of natural gas were discovered at Sui, Baluchistan, in 1952.

SINGAPORE—Status: independent state within Commonwealth of Nations.

Capital: Singapore (pop. 1956: 916,760).

Commissioner General in Southeast Asia: Sir Robert Scott.

High Commissioner for United Kingdom in Singapore: Sir William Goode.

Prime Minister: Lee Kuan Yew.

Foreign trade: see Federation of Malaya.

HISTORY AND GOVERNMENT. Singapore, founded in 1819 by Sir Stamford Raffles, comprises the island of Singapore and adjacent islets. It became a separate Crown colony of Great Britain on Apr. 1, 1946, when the former colony of the Straits Settlements was dissolved. Penang and Malacca were transferred to the Malayan Union, and the small island of Labuan to North Borneo. The Cocos or Keeling Islands were transferred to Australia in 1951 and Christmas Island in 1957.

Under its new 1959 Constitution, Singapore elected in May, 1959, for a term of 5 years and by universal suffrage, a legislative Assembly of 51 members. Voting is compulsory and half of the electorate is illiterate. But Britain still retains control of Singapore's defense and external affairs and may suspend the Constitution or dissolve the legislative Assembly. Executive power is in the hands of an Internal Security Council consisting of 7 members: the British Commissioner as Chairman, the Prime Minister and two other Ministers, two other British representatives, and one Malayan member.

The basis of Singapore's prosperity is its entrepôt trade. It handles a large part of the export trade of Malaya and also conducts a large volume of trade with Indonesia. Singapore has an excellent natural harbor and is the principal British naval base in the Far East. About 76% of the population is Chinese and 12% Malayan.

OCEANIA

Australia, Commonwealth of

(Member of Commonwealth of Nations)

Area: 2,974,581 square miles.

Population (est. 1958): 9,846,000 (excluding full-blooded aborigines, estimated at 50,000).

Density per square mile: 3.3.

Ruler: Queen Elizabeth II.

Governor General: Field Marshal Sir William Slim.

Prime Minister: Robert Gordon Menzies.

Principal cities (est. June 30, 1956): Syd-

ney, 1,935,880 (seaport, wool market); Melbourne, 1,595,300* (seaport, wool, wheat); Brisbane, 527,500 (seaport, industrial center); Adelaide, 514,000 (seaport); Perth, 369,000 (western seaport); Canberra, 32,440 (capital).

Monetary unit: Australian pound (£A).

Language: English.

Religions (census 1947): Anglican, 39.0%; Roman Catholic, 20.7%; Presbyterian, 9.8%; Methodist, 11.5%; other Christians, 7.1%; others, 11.9%.

* Estimate Dec. 31, 1955.

STATUS IN THE WORLD TODAY

Situated on a continent located under the overhang of Asia, Australians are a paradox of history. Culturally they are wholly Western, but they exist in what is geographically "the East." They are "in" the Asiatic area and obviously remote from their Western fellows. What goes on in Indonesia, immediately over their heads like an umbrella, is obviously a more intimate worry to them than to the faraway Americans. They are Western and show few signs of any wish to be assimilated to "the East," either politically or culturally. In World War II their sparsely populated continent was one target of the expansionists in over-populated Japan; hence the current Australian anxiety to sustain their position by rapidly building up the population and economic strength with immigrants from Europe. For what will the United States do if Australian security is actually (not theoretically) menaced by developments in Asia? Will the Americans again come to the rescue?

In formulating a foreign policy, the fundamental problem is how correctly to balance its relations with the United Kingdom on the one hand and the United States on the other. Ordinarily it has not been too difficult to keep these relations in balance. Australia has moved quite close to the United States in the Pacific and Asia without offending Britain and has followed a national line in Asia without tangling with the U. S. It does not recognize Red China. It participates in ANZUS and SEATO (Australia, New Zealand, United States defense pact and Southeast Asia Treaty Organization). It sided with the United Kingdom over Suez. With the right foreign policy, Australians hope to sustain their peculiar position in the critical decades ahead.

Economically, the emphasis since World War II has been on industrial expansion, and today far more people work in factories and offices than on the land. As a trading nation, Australia is closely tied to the United Kingdom and is deeply involved in the Imperial trading system and the Sterling Area. While it has drawn close to the U. S. since World War II, it still normally

runs a dollar deficit as an international trader and must get dollar allocations from the Sterling Area authorities. The marked increase in the flow of American investment capital to Australia has not yet fully corrected the condition.

Politically, Australia has been ruled on the federal level since 1949 by a Liberal-party-Country-party coalition, led by Robert Gordon Menzies as Prime Minister. For eight years before Menzies came to power, the Labor party had ruled. It has been the driving force behind the growth of the welfare state in Australia, and much that it has done while in office is determinative of the climate in which its conservative opposition must function. Although out of power on the federal level, Labor often holds power in the states.

HISTORY AND GOVERNMENT. Australia was the last continent to be discovered. The first Europeans to land were the Dutch, who sailed into the Gulf of Carpentaria in March, 1606. Later in the same year, Luis Vas de Torres, a Spaniard, sailed through the strait subsequently named for him, and may have touched at several points on the north coast. In 1642 Abel Tasman (for whom Tasmania was named) sailed from west to east along the southern shore and proved that Australia was not a part of the Antarctic Continent. The continent was called New Holland until about 1850.

In 1770 Captain James Cook, after visiting New Zealand, sailed to the east coast of New Holland and landed south of the present city of Sydney. His account of the country led to its being claimed and settled by Great Britain.

The first settlement, made in 1788 at Botany Bay, was founded as a penal station for criminals from England. Transportation of criminals was virtually suspended in 1839, and Australia had comparatively few white settlers until gold was discovered in Victoria in 1851, after which immigrants poured in. By 1860 all the states (then separate colonies) except Western Australia had been granted responsible government.

On January 1, 1901, the six Australian states united to form the Commonwealth of Australia. The Federal Parliament consists of a bicameral legislature. The House of Representatives has 124 members elected for 3 years by adult (male and female) suffrage. The Senate has 60 members elected by popular vote for 6 years. One-half of the Senate is elected every 3 years.

Federal judicial power is vested in a Federal Supreme Court of 7 justices, appointed by the Governor General in Council. Each state has its own judicial system.

ECONOMIC CONDITIONS. About 55 per cent of Australia's total area is suitable (mining excepted) only for pastoral pursuits. On March 31, 1957, there were 149,605,000 sheep, 17,136,000 cattle, 1,324,000 hogs, and 737,000 horses.

Sugar and cotton are grown in Queensland and New South Wales, tobacco in northeast Victoria, and vines chiefly in South Australia and Victoria.

New South Wales is the leading industrial state. Power for industry is derived almost entirely from coal.

In 1957 the leading customers were Britain (27%), Japan (14%), France (9%), and the United States and Canada (7%); leading suppliers, Britain (41%), the United States and Canada (16%), Western Germany (4%), and Arabian states (4%). Chief exports were wool (50%), meat (8%), wheat (6%), and fruit (4%). Leading imports included petroleum and products, motor vehicles, iron and steel, and cotton piece goods.

The principal ports are Sydney, Melbourne, and Adelaide.

NATURAL FEATURES AND RESOURCES. Australia is approximately equal in area to the United States and is more than three-fourths the size of Europe.

Along the east coast, ranges of mountains run from north to south, reaching their highest point in Mt. Kosciuszko (7,352 ft.). The western half of the continent is occupied by a desert plateau which rises into barren, rolling hills near the west coast. It includes the Great Victoria Desert, to the south, and the Great Sandy Desert to the north. The island of Tasmania (26,215 sq. mi.) lies off the southeastern coast.

Australia possesses considerable mineral resources. Most important is gold, followed by coal, mined near Sydney, Brisbane, and in eastern Tasmania. The Broken Hill mines in New South Wales are one of the most valuable silver-lead-zinc areas in the world. Other important minerals in 1955 included tin, copper, iron ore, and uranium. Petroleum was discovered in Western Australia in 1953.

Forest products include timber (rough sawn), eucalyptus oil, sandalwood oil, tan bark and yacca gum. Sea products include bêche-de-mer, oysters, pearls, pearl shell, tortoise shell, and agar-agar.

DEPENDENCIES. Norfolk Island (13 sq. mi.), under Commonwealth administration since 1914, lies about 800 miles east of New South Wales. It enjoys a delightful subtropical climate. Citrus fruits, bananas and coffee are grown.

Nauru (about 8 sq. mi.), an important source of phosphate (exports about 1,000,000 tons annually), was annexed by

Germany in 1888 and was placed under joint Australian, New Zealand and British mandate after World War I. In 1947 it was placed under U. N. trusteeship, with the same three administering powers. It lies 2,215 miles northeast of Sydney.

The Ashmore and Cartier Islands (.8 sq. mi.), about 200 mi. off the northeast coast, were placed under Australian authority in 1931, while the Heard and McDonald Islands (158 sq. mi.), about 2,500 mi. southwest of Fremantle, were transferred to Australian control in 1947.

The Australian Antarctic Territory (2,472,000 sq. mi.), comprising all the islands and territories other than Adélie Land situated south of 60° S. lat. and lying between 160° E. long. and 45° E. long., was placed under Australian authority by an order in council effective in 1936.

The Cocos (Keeling) Islands (5 sq. mi.; population 1,000) are a group of 27 small coral islands in the Indian Ocean about 1,160 mi. southwest of Singapore. Used as a link on the Australia-South Africa air route, they were placed under Australian administration in 1951. Christmas Island (62 sq. mi.; population 2,000), about 850 mi. southeast of Singapore, was transferred to Australian control in 1957. It has important phosphate deposits.

PAPUA AND NEW GUINEA, TERRITORY OF—Status: Australian territory and U. N. trust territory.

Capital: Port Moresby (population 13,800).

Chief exports: copra, rubber, gold.

Agricultural products: coconuts, rubber, copra, cacao.

Minerals: gold, silver, platinum.

Effective July 1, 1949, the Australian territory of Papua and the U. N. trust territory of New Guinea were joined in an administrative union by act of the Australian Parliament. Provision is made for an executive and a legislative council.

Papua, comprising the southeastern part of the island of New Guinea, and the islands of the D'Entrecasteaux, Louisiade and nearby groups, was annexed by Queensland in 1883 and by the British Crown in 1888. It came under the control of the Australian Commonwealth in 1901 and became the Territory of Papua in 1906. Japan invaded Papua in early 1942, but in Dec. 1942, Australian control was restored.

The U. N. trust territory of New Guinea, comprising the northern section of eastern New Guinea (93,000 sq. mi.), was mandated in 1920 by the League of Nations to the government of the Commonwealth of Australia, together with the Bismarck Archipelago (New Britain, New Ireland and adjacent islands), the Admiralty Islands with several outlying groups, and the northern Solomon Islands (Bougainville

and Buka). It was placed under United Nations trusteeship Dec. 13, 1946, with Australia as the administering power. Japanese troops occupied much of the territory in 1942-45. On June 30, 1954, there were 8,020 Europeans and 3,422 other nonnatives in the territory.

Fiji—Status: Colony.

Governor: Sir Ronald H. Garvey.

Capital: Suva (population 37,371).

Foreign trade (1955): exports, 38% to Britain; imports, 37% from Britain. Chief exports: sugar (49%), coconut oil (18%), gold (8%).

Agricultural products: sugar, coconut oil, copra, bananas, pineapples.

Minerals: gold.

Fiji colony consists of an archipelago of from 200 to 250 islands in the South Pacific Ocean about 1,740 miles northeast of Sydney, Australia. The larger islands, including Viti Levu (4,011 sq. mi.) and Vanua Levu (2,137 sq. mi.) are mountainous and of volcanic origin. The archipelago was ceded to Great Britain by the native ruler in 1874.

The population of the archipelago in Dec., 1955, included 6,402 Europeans, 146,842 Fijians and 166,262 Indians. Importation of the latter to work the sugar plantations has led to important social and economic changes. There has been almost no intermarriage between Fijians and Indians, and considerable ill feeling has developed between them.

During World War II, the archipelago was an important air and naval station on the route from the United States west coast and Hawaii to Australia and New Zealand.

TONGA (FRIENDLY ISLANDS)—Status:

Protected state.

Ruler: Queen Salote Tupou.

Chief export: copra (86%).

This native Polynesian kingdom in the Pacific came under British protection through the Anglo-German agreement of November 14, 1899. The native Queen is advised by a British Agent; the 21-member native Legislative Council is partly elected and partly nominated. The only important products are copra and bananas.

PITCAIRN ISLAND—Status: Colony.

Located in the South Pacific, about midway between Australia and South America, Pitcairn has an area of 2 square miles. It was settled in 1790 by British mutineers from the ship *Bounty*, commanded by Capt. Bligh. Overpopulation forced removal of the settlement to Norfolk Island in 1856, but about 40 soon returned. The island is administered by the Governor of Fiji through an elected council headed by a Chief Magistrate. The population is about 150.

New Zealand

(Member of Commonwealth of Nations)

Area: 103,740 square miles (including outlying islands).

Population (estimated 1958): 2,282,000.

(1951: European, 93.3%; Maori and half-caste, 5.9%; others, .8%).

Density per square mile: 22.0.

Ruler: Queen Elizabeth II.

Governor General: Viscount Cobham.

Prime Minister: Walter Nash.

Principal cities (census, Apr. 1956): Auckland (greater), 380,412 (seaport and naval base); Christchurch, 193,182 (cereals, stock raising); Wellington, 138,035 (capital); Dunedin City, 99,326 (textiles).

Monetary unit: New Zealand pound (£NZ).

Language: English.

Religions (census 1956): Church of England, 35.9%; Presbyterian, 22.3%; Roman Catholic, 14.3%; Methodist, 7.4%; Baptist, 1.6%; others, 18.5%.

STATUS IN THE WORLD TODAY

New Zealand has not felt it wise or necessary to go as far as neighboring Australia in developing its own foreign policy and a machinery of diplomacy to implement it. It has, however, joined the ANZUS (Australia, New Zealand, United States) defense pact and SEATO (South-east Asia Treaty Organization) and participated in the Colombo Plan, indications of a realization of its relationship to Asia on a regional basis. It has normally been satisfied to rest in the shadow of the United Kingdom where foreign affairs are concerned, but has now moved somewhat closer to Australia. Economically, it is closely linked to the United Kingdom, which takes about two-thirds of all its exports and furnishes about half its imports. During the Suez crisis of 1956, it stood with Britain, although its position might have been different had there been a Labor instead of a Nationalist administration.

HISTORY AND GOVERNMENT. New Zealand, about 1,250 miles east of Australia, consists of two main islands and a number of smaller outlying islands so scattered that they range from the tropical to the antarctic. The islands, which have approximately the area of Italy, were discovered and named New Zealand in 1642 by Abel Tasman, a Dutch navigator. Captain James Cook explored them in 1769. On Jan. 22, 1840, Britain formally annexed them.

New Zealand was granted self-government in 1852, a full parliamentary system and ministries in 1856 and dominion status on Sept. 26, 1907. Meanwhile from 1861 to 1871 there was fierce intermittent fighting with the native Maoris. The Queen is

represented by a Governor-General, and the Cabinet is responsible to a unicameral Parliament of 76 white and 4 Maori members elected by popular vote for 3 years. **ECONOMIC CONDITIONS.** Primarily a grazing country, New Zealand is one of the world's largest exporters of mutton, lamb, wool, butter, and cheese. In 1957, livestock included 42,500,000 sheep, 5,924,000 cattle, and 689,000 hogs. Outside of grass, the chief crop is wheat. Other crops are oats, barley, potatoes, onions, tobacco, fruits, and vegetables.

Leading customers in 1957 were Britain (59%), the United States and Canada (9%), France (6%), and western Germany (5%); leading suppliers, Britain (51%), Australia (17%), the United States and Canada (10%), and western Germany (3%). Leading exports were wool (38%), lamb and mutton (16%), and butter (14%).

NATURAL FEATURES AND RESOURCES. New Zealand's two main components are North Island and South Island, separated by Cook Strait, which varies from sixteen to 190 miles in width. North Island (44,281 sq. mi.) is 515 miles long and volcanic in its south central part. It contains many hot springs and beautiful geysers.

South Island (58,093 sq. mi.) has the Southern Alps along its west coast, with Mt. Cook (12,349 feet) the highest point in New Zealand.

Principal minerals are coal and gold. Other minerals of importance include tungsten, pumice, silica sand, asbestos, scheelite, iron ore, and phosphate. About 30 per cent of the total area is forested.

Numerous rushing streams give New Zealand a great volume of hydroelectric power. About 95 per cent of the population has access to power.

DEPENDENCIES. The Auckland Islands (234 sq. mi.) and Campbell Island (44 sq. mi.) are the principal outlying islands, which have a total area of 324 square miles. They are included within the geographical boundaries of New Zealand as proclaimed in 1847. The Aucklands and Campbell are uninhabited. Six hundred miles north of the Aucklands are the volcanic Kermadec Islands (13 sq. mi.), annexed in 1887. The Union (or Tokelau) Islands (4 sq. mi.), transferred in 1925 from the Gilbert and Ellice Islands colony, were declared part of New Zealand effective Jan. 1, 1949.

In Polynesia a number of uninhabited islands were brought under New Zealand's control in 1901. Rarotonga and Mangaia in the Cook group total 84 square miles. Niue (or Savage Island) (115 sq. mi.) is the largest island outside the Cook group. New Zealand also administers the Ross Dependency (175,000 sq. mi.), an antarctic region claimed by Great Britain in 1923.

WESTERN SAMOA—Status: New Zealand Territory.

Capital: Apia (population 16,000).

Chief exports: cacao, copra, bananas.

Principal products: copra, cacao, bananas, tropical fruits.

The former German Samoan Islands were occupied by New Zealand troops in the opening weeks of World War I and were mandated to New Zealand by the League of Nations in 1920 as the Territory of Western Samoa. They came under U. N. trusteeship in 1947, with New Zealand continuing as the administering authority. In January, 1960, sovereignty over Western Samoa reverted completely to New Zealand. The High Commissioner is assisted by an Executive Council, a Legislative Assembly which has a Samoan majority and a consultative Native Council. There are 9 islands, of which the largest and most populous are Savaii (703 sq. mi.) and Upolu (430 sq. mi.). They are largely mountainous but fertile. The inhabitants are predominantly Polynesian Christians.

PACIFIC ISLANDS (British)

High Commissioner in Western Pacific: Sir John Gutch.

Island groups in the Pacific administered by the British High Commissioner in the Western Pacific include (1) Gilbert and Ellice Islands, (2) British Solomon Islands, and (3) New Hebrides Condominium (see French Overseas Territories). The High Commissioner has headquarters at Honiara, Solomon Islands.

GILBERT AND ELLICE ISLANDS—Status: Colony.

The islands in these groups (including the Gilbert group; the Ellice group; Ocean Island [the seat of administration], Fanning, Washington and Christmas Islands, and the Phoenix group) were proclaimed a British protectorate in 1892 and annexed as a colony in 1915. The most important product is high-grade phosphate.

Ownership of Canton and Enderbury Islands in the Phoenix group was long in dispute between Great Britain and the United States until 1939, when an agreement for "use in common" was reached by the two governments. Several of the Gilbert islands were occupied by Japanese forces in World War II, and Tarawa was the scene of one of the fiercest battles in U. S. Marine Corps history in Nov. 1943.

SOLOMON ISLANDS—Status: Protectorate.

This British protectorate, lying east of New Guinea, includes the islands of Guadalcanal, Malaita, San Cristobal, New Georgia, Santa Isabel, Choiseul and Nu-

merous smaller islands. Bougainville, one of the group, is under Australian mandate. The islands, which came under British protection late in the 19th century, were the scene of several important U. S. naval and military victories during World War II.

There are no native states, and administration is carried on by the High Commissioner assisted by a nominated Advisory Council. The most important products are copra and kauri wood. The population is predominantly Melanesian.

Bulgaria (People's Republic)

(Narodna Republika Bgariya)

Area: 42,796 square miles.

Population (census 1957): 7,667,000 (1952: Bulgarian, 91%; Turkish, 6%; Gypsy, 2%; others, 1%).

Density per square mile: 179.2.

Chairman of Presidium: Dimitar Ganey.

Premier: Anton Yugov.

Principal cities (census 1956): Sofia, 725,756 (capital, railroad center); Plovdiv, 162,518 (commercial center); Varna, 119,769 (Black Sea port); Ruse, 83,472 (chief Danube port); Burgas, 72,795 (Black Sea port).

Monetary unit: Lev.

Languages: Bulgarian, Turkish.

Religions: Greek Orthodox, 84.4%; Mohammedan, 13.5%; Jewish, .8%; Roman Catholic, .8%; others, .5%.

STATUS IN THE WORLD TODAY

Bulgaria, probably because its religion, language, and national origin are the same as those of Russia, has become what might be called a model satellite. Despite the tyrannical rule of the Communist party, the people do not seem to have the hatred for their rulers which the Hungarians demonstrated in their revolt. Predominantly agricultural, Bulgaria has more than two-thirds of its arable land held by collective farms, the highest percentage among Russia's East European satellites. Unlike Yugoslavia or Poland, it has followed the Kremlin line without balking outwardly, operating under a personal dictatorship of the Stalin type as long as Stalin lived, then changing leadership and splitting the posts of party secretary and prime minister between two individuals when Stalin and the "cult of personality" were denounced. Although it once discussed the possibility of federation with Yugoslavia, it has, since 1948, loyally denounced Titoism whenever called upon to do so. One explanation is that even in Czarist days, Russia was considered a friendly, Slavic power rather than an inimical, exploiting imperialist state. Although its rulers showed marked pro-German feelings in both World Wars, the people regarded Russia with friendship. For in the nineteenth century, Russia was one of the champions of Bulgarian independence.

The relations between Bulgaria's Com-

munist regime and the United States reached an all-time low in 1950 when Sofia accused the American Minister, Donald Heath, and other members of his staff of espionage. The United States responded by breaking off diplomatic relations and withdrawing its representatives. After three vain attempts to restore official relations, the Bulgarians finally apologized early in 1959 for having made the unfounded accusations against the American diplomats, and on that basis diplomatic relations were resumed.

HISTORY AND GOVERNMENT. The first Bulgarians, a tribe of wild horsemen akin to the Huns, crossed the Danube from the north in A.D. 679, and subjugated the Slavonic population of Moesia. They adopted a Slav dialect and Slavic customs and twice conquered most of the Balkan peninsula between 893 and 1280. After the Serbs subjected their kingdom in 1330, the Bulgars gradually fell prey to the Turks, and from 1396 to 1878 Bulgaria was a Turkish province. In 1878, Russia forced Turkey to give the country its independence; but the European powers, fearing that Bulgaria might become a Russian dependency, intervened. By the Treaty of Berlin (July, 1878), Bulgaria became autonomous under Turkish sovereignty.

In 1887, Prince Ferdinand of Saxe-Coburg-Gotha was elected ruler; on Oct. 5, 1908, he declared Bulgaria an independent kingdom.

Bulgaria joined Germany in World War I and lost. On Oct. 3, 1918, Tsar Ferdinand abdicated in favor of his son, who became Tsar Boris III. The Treaty of Neuilly the next year disarmed Bulgaria, reduced it to its 1878 size, and levied a heavy indemnity.

Boris assumed dictatorial powers in 1934-35. When Hitler awarded Bulgaria Southern Dobruja, taken from Rumania in 1940, the weak but land-hungry Boris joined the Nazis in war the next year and occupied parts of Yugoslavia and Greece. Later, with the fortunes of war swinging inexorably against them, the Germans tried to force Boris to send his troops against the Russians. Boris resisted and died under mysterious circumstances on Aug. 28, 1943.

Simeon II, infant son of Boris, became nominal ruler under a regency. Three days

after Russia declared war on Bulgaria on Sept. 5, 1944, Bulgaria declared war on Germany. Russian troops streamed in the next day, and under an informal armistice a coalition "Fatherland Front" Cabinet was set up under Kimon Georgiev.

Most of the population is Greek Orthodox. Clergy of all faiths are paid by the state. The national language, Bulgarian, is closely related to Russian; both employ the Cyrillic alphabet.

ECONOMIC CONDITIONS. Bulgaria is still predominantly agrarian, with most of the population engaged in agriculture. Because of the mountainous character of the country, however, less than half of the land is tilled or used for pasture. Collectivization is well-advanced. More than half the cultivated area is devoted to cereals, including wheat, corn, barley, oats, and rye. Other crops are tobacco, alfalfa, cotton, flax, potatoes, and sugar. There are extensive vineyards in the southern valleys.

Industries are of minor importance and with few exceptions—tobacco leaf, wines and liquors, fertilizers, and flour—are confined to domestic markets. Industrialization is one of the chief aims of the Communist regime, however, and all industries of any importance have been nationalized. Both the first (1948-53) and the second (1953-57) five-year plans emphasized the development of heavy industry. An oil refinery with an annual capacity of 1,000,000 tons is currently under construction.

Foreign trade necessarily consists of the exchange of agricultural products for cheap manufactures.

Leading customers in 1950 were the U.S.S.R. (45%), and Czechoslovakia, Hungary, Rumania, and Poland (31%). Leading suppliers were the U.S.S.R. (67%) and the four above-named satellites (31%). Tobacco is the principal export.

NATURAL FEATURES AND RESOURCES. Two mountain ranges and two great valleys mark Bulgaria's topography. The Balkan belt crosses the center of the country, almost due east-west, rising to a height of 7,800 feet. The Rhodope range breaks off from the Balkans in the west, curves and then straightens out to run nearly parallel along the southern border. Between the two ranges is the valley of the Maritsa, Bulgaria's principal river. Between the Balkan range and the Danube, which forms most of the northern boundary with Rumania, is the Danubian tableland, traversed by several short rivers. Southern Dobruja, a fertile region of 2,900 square miles below the Danube delta, is an area of low hills, fens and sandy steppes.

Soft coal is Bulgaria's principal mineral. Other minerals include chromite, gypsum, iron ore, manganese ore, rock salt, and silver.

Burma (Republic)

Area: 261,757 square miles.

Population (est. 1958): 20,255,000 (1941 Burmans, 60%; Shans, 7%; Chins, 2%; Kachins, 1%; Indians, 6%; Chinese, 1% Indo-Burmans, 1%; others, 22%).

Density per square mile: 77.4.

President: U Win Maung.

Premier: Gen. Ne Win.

Principal cities (census 1953): Rangoon 737,079 (capital, chief port); Mandalay 185,867 (river port, upper Burma); Moulmein, 102,777 (seaport).

Monetary unit: Kyat.

Languages: Burmese (70%), English.

Religions: Buddhist, 90%; Mohammedan, 3%; Hindu, 3%; Christian, 2% others, 2%.

STATUS IN THE WORLD TODAY

Burma, which achieved its independence on Jan. 4, 1948, has tried to follow a foreign policy of neutralism, or "third-force-ism" to avoid involvement in the cold war. Yet, despite the threat posed by its glacial northern neighbor, Communist China, it has taken such pro-Western steps as supporting the U.N. on the Korean issue and voting against the Soviet bloc on the Hungarian issue.

Despite its neutralism, Burma's relations with Communist nations have not been too happy. As the world's largest rice-exporting nation, Burma found it difficult to dispose of its surpluses in 1954 and 1955 and turned to the Sino-Soviet bloc for a far-reaching barter agreement which would dispose of about 25% of annual rice stocks. Then, in trying to dispose of the rest of its rice for cash elsewhere it found itself competing with its own product which the Communists had dumped on the market at a low price. Domestically, it was faced with an armed Communist rebellion only two months after achieving independence. And its relations with China were complicated by the presence of Chinese Nationalist troops in border areas which gave the Communists a pretext to occupy frontier sections of Burma. Parts of Burma are actually shown as Chinese territory on maps published in Peiping, and the Burmese fear that China may seize some of the border despite the fact that both nations have agreed to the so-called "five principles of peaceful co-existence."

In its relations with the United States Burma received about \$20 million in grant aid between 1950 and 1953, but then terminated all grant aid agreements because of disappointment with the United States over the removal of the Chinese Nationalist troops in the north. But after several years of economic dealings with the Communist bloc, Burma resumed in 1955 arrangements for loans and the purchas-

of surplus agricultural products along with a \$20 million loan from the International Bank for Reconstruction and Development.

Politically, Burma was ruled for the first ten years of its independence by the Anti-Fascist People's Freedom League (AFPFL), a coalition originally organized as a wartime resistance movement. After expelling the Communist elements, the AFPFL government gained steadily in strength and demonstrated its ability to bring about meaningful economic progress. But gradually differences developed among the AFPFL leaders, and when the leadership split publicly, the Burmese Army took power in September, 1958, in a bloodless coup to prevent Communist elements from seizing control. Army officers said that as soon as they had put an end to the Communist insurrection and wiped out the bands of guerrillas, elections would be held and the administration turned over to civilians.

HISTORY AND GOVERNMENT. Lying on the eastern side of the Bay of Bengal between India, China, and Thailand, the Union of Burma came into existence as an independent state on Jan. 4, 1948. In 1612 the British East India Company sent agents to Burma, and in the seventeenth and eighteenth centuries the Burmese stoutly resisted the efforts of British, Dutch, and Portuguese traders to establish posts on the Bay of Bengal. Actual British rule dated from 1826, and in 1886 British troops forced the annexation of all Burma to India. On April 1, 1937, the British separated Burma from India and set it up as a Crown colony with its own legislature and a British Governor.

For hundreds of years a battlefield of petty princes, Burma became a key battleground in World War II largely because the 800-mile Burma Road was the Allies' vital supply line to China. The Japanese invaded the country in Dec., 1941, and by May 1942, had occupied most of it, cutting the road. In Aug., 1942, the Japanese set up a puppet government.

After one of the most difficult campaigns of the war, Allied forces liberated most of Burma prior to the Japanese surrender on Aug. 14, 1945.

The Constitution of Sept. 24, 1947, provides for a government headed by the President, who is elected by the two houses of Parliament—the Chamber of Deputies, consisting of 250 members elected for 4 years, and the Chamber of Nationalities, consisting of 125 members elected for 4 years. The President appoints the Premier on nomination of the Chamber of Deputies. Four frontier areas—the Shan, Kachin, and Karenni states, and the Chin special di-

vision—are constituent parts of the Union but enjoy some autonomy. The Constitution contemplates a form of state socialism, with the operation of all public utilities and the exploitation of all natural resources to come eventually under state control.

SOCIAL AND ECONOMIC CONDITIONS. The natives in general are Mongolian; the Burmese are the most advanced. Indians, settled in the Irrawaddy delta region, supply most of the coolie labor, while the Chinese constitute the artisan and merchant class. Buddhism, the national religion, profoundly affects the national character; every village in the country has its temple.

Burma is essentially agricultural, with crop-growing concentrated in the delta and river valleys. It is a leading producer of rice, the staple food, which occupies two-thirds of the cultivated area. Crops grown in the dry zone in upper Burma include millet, cotton, peanuts, and sesame. Other crops include tobacco, fruit, vegetables, and cereals. The number of rubber plantations has increased. The principal domestic animals are water buffalo, used as a beast of burden in the delta, and small humped oxen, which predominate in other areas. In July, 1959, Burma accepted \$30 million from the U. S. to be received over a period of 4 years, and to cover the foreign exchange costs of the construction of a highway connecting Rangoon with central Burma, and for physical construction at the University of Rangoon.

Leading industries include silk weaving and dyeing, rice husking, oil refining, and wood carving.

Chief exports in 1957 were rice and products (78%) and metals and ores (5%). Leading customers were India (23%), Japan (10%), and Britain (6%); leading suppliers were Britain (21%), Japan (24%), and India (10%).

NATURAL FEATURES AND RESOURCES. Slightly smaller than Texas, Burma is divided into three natural regions: the Arakan Yoma, a long, narrow mountain range forming the barrier between Burma and India; the Shan Plateau in the east, extending southward into Tenasserim; and the Central Basin running down to the flat, fertile delta of the Irrawaddy in the south. This delta contains a network of inter-communicating canals and nine principal mouths.

Mineral resources are considerable but, in many cases, undeveloped.

Other minerals include lead, silver, zinc, nickel, cobalt, copper, gold, iron ore, molybdenum, coal, uranium (reported), rubies, sapphires, and jade.

More than half of Burma is forested. Teak, valuable for naval construction, is the main timber product. Its cutting is strictly controlled.

Cambodia (Kingdom)

Area: 67,568 square miles.

Population (est. 1957): 4,600,000.

Density per square mile: 64.5.

Ruler: King Norodom Suramarit.

Premier: Norodom Sihanouk.

Principal cities (est. 1957): Pnom-Penh, 500,000 (capital); (1941) Battambang, 23,-567 (rice).

Monetary unit: Riel.

Languages: Cambodian, French, Annamese.

Religion: Buddhism.

STATUS IN THE WORLD TODAY

Cambodia, which was relatively free of Communist subversive activity during the prolonged conflict between France and the Communist-led Viet Minh, has pursued a neutralist course in world politics, trying to steer a middle course between the world power blocs. The only part of former French Indo-China not partitioned by the Geneva agreements (July 1954) which ended the nine-year Indo-China war, it remained for the most part outside the main theaters of military operations. While heavily dependent on aid from the United States (about \$40 million annually) and to a lesser extent France, Cambodia has also received large-scale help from the Communist bloc, especially Red China. Allegations of American interference in Cambodia's internal affairs have been more than offset by the exposure of Communist subversive activities financed and directed from abroad. Despite the latter, Cambodia recognized Red China in 1958 and its prime minister then made a highly publicized visit to Peking.

The nation's long-range economic development plans are proceeding slowly. Although most American aid has gone to support Cambodia's armed forces, the United States has also contributed to other projects. The most spectacular is a highway connecting Pnom-Penh, the capital, with Kompong Som, on the Gulf of Siam, where the French are building a deep-water port to free Cambodian commerce from dependence on the Mekong river.

Political life in Cambodia has been dominated by the volatile, enigmatic personality of ex-King Norodom Sihanouk, who ascended the throne in 1941. Four years later he abdicated to play a more active role in politics. He organized the Popular Socialist Community, which has controlled the government ever since 1955. But since Norodom Sihanouk has consented to serve only intermittently as Prime Minister, political life has been characterized by marked cabinet instability.

Vietnam, on the north by Laos and Thailand, on the west by Thailand, and on the southwest by the Gulf of Siam. Its recorded history dates back to the beginning of the Christian era, when it was known as Fou-Nan. It was absorbed in about 600 A.D. by the Khmers, under whose rule magnificent temples were built at Angkor. The arrival of the French, who were granted a protectorate in 1863, prevented the annihilation of the Khmer empire by the Vietnamese and Siamese. It was occupied by Japan during World War II. Cambodia's legislature consists of a unicameral National Assembly of 61 members elected for 4 years by direct universal suffrage.

ECONOMIC CONDITIONS. About 74% of the population is Cambodian, 5% Annamese, and 4% Chinese. The forested regions of the northeast are inhabited by various primitive peoples.

Agriculture is the basis of the economy. The chief crop is rice, grown principally in the Battambang area. Second in importance is rubber. Other crops include tobacco, kapok, cotton, pepper, and maize. Cattle breeding is of major importance. Native industries include silk and cotton weaving, rice milling, and the salting of fish obtained from Lake Tonle Sap during the low-water season.

Leading exports include rice, rubber, animal products, wool and hides, and skins. A large part of the trade is with France, the United States and Vietnam.

NATURAL FEATURES AND RESOURCES. Cambodia consists chiefly of a large alluvial plain ringed in by mountains and on the east by the Mekong river. The plain is centered on Lake Tonle Sap, which is a natural storage basin of the Mekong.

Forests cover about 75% of the country, but most are unexploited. Deposits of iron ore, limestone and phosphate exist but also are undeveloped.

Chile (Republic) (República de Chile)

Area: 286,396 square miles.

Population (est. 1958): 7,298,000.

Density per square mile: 25.5.

President: Jorge Alessandri.

Principal cities (census 1952): Santiago, 1,348,283 (capital); Valparaíso, 218,829 (port); Concepción, 119,887 (farming center); Viña del Mar, 85,281 (resort center); Antofagasta, 62,272 (nitrates).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Like many other countries which have to depend on one or two products to earn

HISTORY AND GOVERNMENT. Cambodia is bounded on the south and east by south

foreign exchange, Chile's principal problem is economic. Nitrates and copper exports bring in nearly all its vitally needed earnings, and these vary as the world prices of the two minerals fluctuate. In addition, although Chile once exported wheat and other agricultural products, in the past twenty years it has become an increasingly large importer of these commodities and has consequently needed more foreign exchange. Industrialization, begun in World War I and stimulated by the depression, has helped to provide locally many manufactured goods formerly imported. To reduce its dependence on imported petroleum products, the government has started drilling for oil wells in southernmost Tierra del Fuego. It has also established a major steel industry in Talcahuano. But swiftly rising prices have brought about an inflation which has caused riots and strikes over such comparatively small increases in living costs as a rise in bus fares in Santiago.

HISTORY. Europeans first arrived in 1536, when Diego de Almagro, an associate of Pizarro, led an unsuccessful invasion from Peru. Five years later another Spaniard, Pedro de Valdivia, founded Santiago. On Sept. 18, 1810, Chile rebelled against Spanish rule, but independence was not won completely until 1818, when Bernardo O'Higgins and José de San Martín finally crushed the Spanish armies.

Chile, which has never lost a war, fought with Bolivia and Peru in 1879-83 and won the province of Antofagasta, Bolivia's only outlet to the Pacific, as well as extensive areas from Peru. In World War I, Chile was neutral.

GOVERNMENT. The nation elects a President every six years, a Senate of 45 members every eight years (one half renewable every four years), and a Chamber of Deputies of 147 members every four years. The President is assisted by a Cabinet responsible to him but subject to impeachment by Congress, which also may override a presidential veto by two-thirds vote. All literate citizens over 21 may vote.

ECONOMIC CONDITIONS. Chilean agriculture is mostly confined to the temperate central valley, similar to that of California. Productive land is extremely limited, and most of it must be irrigated. Wheat (1956-1957: 988,000 metric tons) is the leading crop. Grapes, next to wheat in acreage, produced an estimated 118,800,000 gallons of wine in 1956. Feudal-type estates, averaging 2,500 acres, predominate. Cattle in 1956 totaled 2,560,000 and sheep 6,540,000. Wool production (1957) was about 48,000,000 pounds, greasy basis.

Trade. In 1957 the leading customers were

the U. S. (41%), Britain (15%), Western Germany (13%), and Argentina (10%); leading suppliers, the U. S. (52%), Western Germany (12%), Argentina (4%). Chief exports were copper (67%) and nitrate of soda (10%). Leading imports were machinery (25%), transportation equipment (13%), and petroleum (7%).

Except for mineral processing, most manufacturing is of low-priced consumer's goods, particularly textiles.

NATURAL FEATURES AND RESOURCES. A narrow, mountainous land, Chile has one-third of its area covered by the towering ranges of the Andes. In the north is the mineral-rich Atacama Desert, between the coast mountains and the Andes. In the center is a 700-mile-long valley, thickly populated, between the Andes and the coastal plateau. In the south, the Andes border on the ocean.

At the southern tip of Chile's mainland is Punta Arenas, the southernmost city in the world, and beyond that lies the Strait of Magellan and Tierra del Fuego, an island divided between Chile and Argentina. The Juan Fernández Islands, in the South Pacific about 400 miles west of the mainland, and Easter Island, about 2,000 miles west, are Chilean possessions.

The basis of the country's economy is its mineral resources in the northern desert provinces of Atacama, Antofagasta and Tarapacá, where the only natural nitrate in the world is found. Some 60 per cent of the world's iodine is obtained as a by-product of nitrate processing. Chile's world monopoly in nitrate, however, declined in importance with development of the synthetic product.

The world's largest copper reserve, estimated at 134 billion pounds, is in Chile, and also more than 900 million tons of high grade iron ore. The reserve of Chilean coal, noted for quantity rather than quality, exceeds two billion tons.

China (Republic) (Chung-Hua Min-Kuo)

Area: 3,911,209 square miles.*
Population (census 1957): 649,851,000.*
Density per square mile: 166.2.

President, Nationalist China: Generalissimo Chiang Kai-shek.

Premier: Chen Cheng.

Chairman, Communist China: Mao Tse-tung.

Premier: Chou En-lai.

Principal cities (census 1953): Shanghai, 6,204,417 (chief port, industrial and finan-

* Including Province of Formosa (Taiwan), Manchuria and Tibet. Census not taken in Formosa (population estimated at 7,591,298); population total excludes an estimated 11,743,320 Chinese resident abroad. The total population figure is regarded with considerable reserve.

cial center); Peking (Peiping), 2,768,149 (capital, Communist China); Tientsin, 2,693,831 (commercial center); (est. 1952) Chungking, 2,000,000 (river port, trade center); Mukden, 1,790,000 (Manchurian industrial center); Canton, 1,210,000 (southern commercial center); Wuhan, 1,090,000 (river port); Nanking, 1,020,000 (former Nationalist capital).

Monetary unit: Chinese dollar (yuan).

Language: Chinese.

Religions: Principally Confucian, Buddhist and Taoist.

STATUS IN THE WORLD TODAY

Communist China, as the Asian partner of the U.S.S.R., carries out in Asia the policy which the Russians are particularly active in pushing in Africa and the Middle East—supporting nationalistic movements, opposing any American or Western moves as “imperialistic” and “colonial,” giving economic assistance, although to an extremely limited degree, to newly established governments, and undermining, wherever possible, democratic institutions and administrations. Its most notable example of intervention was in the Korean conflict. But it is equally active in the nations which came into being in Southeast Asia, and continuously dangles the bait of increased trade before Japan in return for diplomatic recognition. While it has been recognized by a fairly large number of countries, including the United Kingdom, it has yet to attain membership in the United Nations, despite repeated attempts by the U.S.S.R., or to oust Nationalist China from its seat on the Security Council.

China's model for the Communist state is found in Stalin's totalitarian institutions. Although Communist party leader Mao Tse-tung, in a 1957 speech entitled “Let One Hundred Flowers Bloom, Let One Hundred Schools of Thought Contend,” seemed to indicate that there could be some criticism of the administration, those who took him at his word soon found themselves being “re-educated” in work camps or other institutions, and the flow of critical thought was quickly stopped. While there is no accurate way to measure the true feeling of the Chinese people toward the Communist regime, reports from the mainland indicate there is scattered resistance from a number of groups, with the government determined to stamp out all opposition ruthlessly.

There has been particular widespread discontent among the peasants, the demands upon agriculture having been severe during recent years. The Communists have been trying to modernize China by following the Soviet model of emphasis on heavy industry. The chief stress has been on capital goods production which

the current Five-Year Plan, begun in 1958, proposes to raise 18.8% as compared with 9.7% for consumer goods. Industrial gains have been made. But since the state has used most of the “surplus” extracted from the countryside to develop industry, there has been little capital available to invest in agriculture. The Communists have tried to increase production, but the result has not been impressive. Figures on recent crops show that collectivization of the land has not solved China's problem of increasing agricultural production and that greater attention is going to have to be given by the leaders to China's rural problems. State grain collection already has been slightly eased as the result of peasant withholding of grain, and travel restrictions have been tightened because of the exodus to the city.

The seriousness which Communist leaders attach to the food problem is underlined by the fact that in order to provide more farm labor, they have even broken up the traditional basic Chinese social unit—the family. Fathers and mothers are taken from their homes and housed in separate barracks to constitute male and female working gangs while their children are placed in state-operated nurseries. At intervals such as every two weeks, the families are permitted a brief reunion.

While the strains imposed on China's rural millions have been severe, it must be recognized that the over-all national income of Red China appears to have gone up each year by about 9%. This has meant a per capita annual rise in income of 6-7%. When compared with the economic gains of postwar, democratic Japan, China's achievements are not so impressive; but, when compared with the long years of relative stagnation in China's past, they are impressive indeed.

HISTORY AND GOVERNMENT. By 2000 B.C., the Chinese were living in the Hwang Ho basin, and they had achieved an advanced stage of civilization by 1200 B.C. The great philosophers, Lao-tse, Confucius, Mo Ti, and Mencius lived during the Chou dynasty (about 1122 to 249 B.C.). The warring feudal states were first united under Emperor Ch'in Shih Huang Ti, during whose reign (246-210 B.C.) work was begun on the Great Wall. Under the Han dynasty (206 B.C. to A.D. 220) China prospered and traded with the West.

The T'ang dynasty (618-907) has often been called the golden age of Chinese history. Painting, sculpture, and poetry flourished under royal patronage, and printing made its earliest known appearance.

The Mings, last of the native rulers (1368-1644), overthrew the Mongol or

Yuan dynasty (1280-1368) established by Kublai Khan, whose dominions extended into eastern Europe. The weakening Mings in turn were overthrown in 1644 by invaders from the north, the Manchus.

The Chinese closely restricted foreign activities, and by the end of the 18th century only Canton (and the Portuguese port of Macao) were open to European merchants. Following the Anglo-Chinese War of 1839-42, however, several treaty ports were opened and Hong Kong was ceded to Britain. Treaties signed after further hostilities (1856-60) weakened Chinese sovereignty and removed foreigners from Chinese jurisdiction. The disastrous Chinese-Japanese War of 1894-95 was followed by a scramble for Chinese leases and concessions by European powers, which resulted in the Boxer Rebellion (1900), suppressed by an international force.

The death of the Empress Dowager Tzu Hsi in 1908 and the accession of the infant Emperor Hsüan T'ung (Pu-Yi) were followed by a nation-wide rebellion led by Dr. Sun Yat-sen, who became first President of the Provisional Chinese Republic in 1911. The Manchus abdicated on Feb. 12, 1912. Dr. Sun resigned in favor of Yuan Shih-k'ai, who suppressed the republicans but was forced by a serious rising in 1915-16 to abandon his intention of declaring himself Emperor. Yuan's death in June, 1916, was followed by years of civil war between rival militarists and Dr. Sun's republicans. The death in 1925 of Dr. Sun, who had controlled only the Canton area in opposition to the recognized regime, was followed by a revival of the Kuomintang party, which practically deified him. Nationalist forces, led by Gen. Chiang Kai-shek and advised originally by Communist experts, soon occupied most of China, setting up a Kuomintang regime in 1928. Internal strife continued, however, and Chiang broke with the Communists.

An alleged explosion on the South Manchurian Railway on Sept. 18, 1931, brought invasion of Manchuria by Japanese forces, who installed the last Manchu Emperor, Henry Pu-Yi, as nominal ruler of the puppet state of "Manchukuo." Japanese efforts to take China's northern provinces in July, 1937, were resisted by Chiang Kai-shek, who meanwhile had succeeded in uniting most of China behind him. Within two years, however, Japan seized most of the ports and railways. The Kuomintang government retreated first to Hankow and then to Chungking, while the Japanese set up a puppet government at Nanking headed by Wang Ching-wei.

When the Japanese surrendered in 1945, China signed a treaty with the Soviet Union providing for Soviet withdrawal from Manchuria, joint Chinese-Soviet control of Manchurian railways for 30 years, a

joint Chinese-Soviet naval base at Port Arthur, and a free port at Dairen.

The surrender of Japan also touched off a civil war between Nationalist and Communist forces for control of China. By the end of 1949, all of the republic except the island of Formosa was under Communist control. Barricaded on Formosa, the Nationalist regime had little means at its disposal to make any effective counter-attack upon the mainland. The U. S., however, after the outbreak of the Korean war in 1950, promised naval and air aid to repel any invasion of Formosa.

The Communists meanwhile set up, in September, 1949, a soviet-type government. After prolonged negotiations, the People's government and the Soviet Union signed a 30-year treaty of friendship and mutual aid on Feb. 14, 1950; its published terms provided for return of the Changchun railroad to China and the eventual return of Port Arthur and Dairen.

The Communist regime subsequently was recognized as the legal government of China by many nations but was unable to secure a place in the U. N. It threw several hundred thousand men into the Korean war of 1950-53 in a futile effort to drive U. N. forces from Korea.

ECONOMIC CONDITIONS.

Agriculture. In China, nearly 80 per cent of the population depends on the land for livelihood. Subsistence crops are necessarily emphasized, but China is still not self-sufficient in food. Cultivation is intensive, holdings are small, and irrigation is widely practiced. The three most important food crops are rice, wheat, and maize.

In northern China, wheat, barley, corn, sorghum, millet and other cereals, and beans and peas predominate, whereas in the south, rice, sugar, and indigo are most important. The Yangtze basin, one of the most favored agricultural regions in the world, is China's premier granary. Tea, the chief beverage, is grown mainly in the central uplands, coastal ranges and Szechwan.

Silkworm culture is practiced widely, especially in the lower Yangtze valley. Soybeans and cotton are of ever-increasing importance. Other crops include fibers, tobacco, vegetable oils, cane sugar, and many medicinal plants and spices.

The urgent need for subsistence crops has confined grazing grounds for sheep and cattle to the dry northwest and to mountain pastures. However, such animals as goats, poultry, and especially pigs are raised everywhere. According to unofficial estimates, Communist China had in 1953 28,812,000 cattle, 17,190,000 sheep, 77,376,000 hogs, 34,110,000 goats, and 11,885,000 buffalo.

Industry. Industrially, China is still in its infancy. Development has been mainly in the erection of textile mills, silk and flour mills, match factories, tanneries, and a few steel and cement mills. The production of consumer's goods far exceeds that of producer's goods, which must still be imported.

The communist regime is reported to be concentrating upon Manchuria as China's industrial center and to be shifting some industries to the northwest.

Trade. According to official reports, the U.S.S.R. and its satellites accounted for 80% of Communist China's total trade in 1957. Major exports include textiles and products, tung oil, and pig bristles.

NATURAL FEATURES AND RESOURCES. China has about $1\frac{1}{4}$ times the area of the continental United States. Its coast line is roughly a semi-circle, about 2,150 miles long. The greater part of the country is mountainous, and only in the lower reaches of the Hwang Ho (Yellow) and Yangtze Kiang rivers are there extensive low plains;

The principal mountain ranges are the Tien Shan, to the northwest; the Kunlun chain, which attains a maximum height of 23,890 feet, running south of the Takla Makan and Gobi deserts; and the Trans-Himalaya, connecting the Kunlun with the borders of China and Tibet. Manchuria is largely an undulating plain connected with the north China plain by a narrow lowland corridor. Inner Mongolia contains the relatively fertile southern and eastern portions of the Gobi. The large island of Hainan (13,500 sq. mi.) lies off the southern coast.

Hydrographically, China proper consists of three great river systems. The northern part of the country is drained by the Hwang Ho river, 2,700 miles long and mostly unnavigable. The central part is drained by the Yangtze Kiang, the fifth longest river in the world (3,100 mi.). The Si Kiang in the south is about 1,650 miles long and navigable for a considerable distance. In addition, the Amur forms part of the northeastern boundary.

Minerals. Mineral resources are considerable. Iron ore, far less plentiful than coal, is mined principally in the lower Yangtze valley and in north China. Tin, mined in Yunnan and southwest Szechwan, has been a major mineral export. Of some rarer minerals, notably antimony and tungsten, China is sometimes the world's leading producer. Lead, zinc, silver, mercury, and gold are also mined. The discovery of uranium has been reported in recent years.

Forests and Fisheries. China urgently needs reforestation. Most remaining forests are on inaccessible mountain slopes. Bamboo

is cultivated in groves throughout the country south of the Tsinling mountains.

FORMOSA (TAIWAN)—Status: Province (Part of Republic of Nationalist China).

Area: 13,885 square miles.

Population (estimated 1958, excluding troops and militia): 9,851,000.

Principal cities (est. 1957): Taipei, 777,467 (capital); Kaohsiung, 371,225 (seaport, industrial center); Tainan, 287,797 (agricultural products).

Foreign trade (1957): exports, U. S. \$168,510,000; (1956) imports, U. S. \$114,360,000* (56% from Japan). Chief exports: sugar (59%), rice (10%), canned pineapple (5%).

Agricultural products (est. 1957, in metric tons): sugar, 917,862; rice (paddy), 1,839,909; tea, 14,500; bananas, pineapples, sweet potatoes.

Manufactures (1957): cement, 603,933 metric tons; cotton cloth, 130,000,000 sq. yd.; paper, 59,634 tons; aluminum, 8,700 tons; steel bars, 67,900 tons.

Minerals: coal (1957: 2,916,000 metric tons), gold, petroleum, silver, sulfur.

* Excludes U. S. aid imports (\$95,374,000) and those with self-provided exchange (\$16,580,000).

STATUS IN THE WORLD TODAY

Despite attempts by the Soviet Union to obtain both *de jure* and *de facto* recognition of the Communist regime as the government of China, the Nationalist government now located on Taiwan is still recognized by the United Nations, the United States, and a number of other nations as the legitimate government of the mainland territory. President Chiang Kai-shek still hopes to reconquer the China over which he once ruled, and the Taiwan regime consequently maintains an armed force of more than 600,000 men. Similarly, the Communist regime in Peiping has pledged itself to "liberate" Taiwan and make it part of Red China. Currently a United States promise to defend Taiwan against aggression has discouraged any Communist invasion threats, and its assistance in protecting shipments of supplies to the offshore islands of Matsu and Quemoy, held by Nationalist forces, has cut down actual hostilities to desultory exchanges of artillery shells. In late 1958, President Chiang announced his decision not to seek re-election when his present term expires May 19, 1960.

Economically, the Taiwan regime is dependent upon American aid although it has made great strides in increasing both agricultural and industrial output. Although trade with both the United States and Japan has been considerably expanded, there is still an unfavorable balance of payments. Capital needs for economic development are still too great to be met locally, and military costs far exceed revenues available to the government.

Principal cities (est. 1958): Bogotá, 1,180,120 (capital); Medellín, 545,860 (mining); Cali, 503,530 (coffee, mining); Barranquilla, 392,330 (seaport); Bucara-

manga, 173,740 (industrial center); Cartagena, 162,610 (seaport).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Colombia did not believe that a dictatorship was justified merely because the country was economically prosperous. The cruel regime of General Rojas Pinilla, who took power with the backing of the army in 1953 and had himself elected President the following year by a constitutional assembly he himself had named, was finally overthrown in May, 1957. A military junta took over until elections could be held. The Liberals and Conservatives agreed that for twelve years, in the interests of political peace and preventing further military coups, the presidency would alternate between the two parties and congress would be equally divided between them. The congressional elections of March, 1958, gave the Liberals a 3 to 2 advantage over the Conservatives, and two months later Alberto Lleras Camargo, a Liberal, was inaugurated as President.

Colombia was primarily a coffee producer until World War II, but with the beginning of industrialization, the nation became self-sufficient in cotton and woolen textiles. Then came the establishment of steel, chemical, cement, and metallurgical industries, while agriculture became more diversified. The growth of the economy continued while the political situation deteriorated until the popular revolution of 1957.

HISTORY. Colombia, nearly nine times the size of New York state, is the only country in South America with frontage on both the Pacific and the Caribbean. Its northern coast was one of the first parts of the Americas to be visited by Spanish explorers. Darien, the first permanent European settlement on the American mainland, was founded in 1510.

New Granada, as Colombia was called until 1861, was comparatively neglected during the Spanish colonial era. After winning independence from Spain during a fourteen-year struggle ending in 1824, the country established a republic in 1831, including the area that now is Panamá. Intermittent civil war plagued Colombia until 1903, when Panamá, with United States backing, seceded from the republic.

The century-old boundary dispute with Peru over Leticia almost led to war in 1931, but a settlement was arranged through the League of Nations in 1934-35.

GOVERNMENT. Colombia's President, who appoints his own Cabinet, is elected every

four years and is not eligible for immediate reelection. The Senate—upper house of Congress—has 80 members elected for four years by direct vote. The House of Representatives of 148 members is directly elected for two years. Congress was superseded temporarily by a national constituent assembly in 1954. All citizens over 21 may vote. On December 1, 1957, a popular plebiscite amended the Constitution establishing parity for 12 years between the Liberal and Conservative parties in both Houses of Congress and in the regional legislatures and municipal councils, in the Supreme Court, the central Government, and the regional cabinets. In December, 1958, some seven months after President Camargo was elected, former President Pinilla was found guilty by the Senate of having violated the Colombian Constitution and of "abuse of power by improper conduct in the exercise of the office of President."

ECONOMIC CONDITIONS. Most of the people live by farming and cattle herding, but only a small part of the land is cultivated, and that by primitive means. Colombia's coffee, the nation's principal crop, is a mild variety that does not compete with Brazilian types. Cattle numbered 13,390,000 in Dec., 1957, according to U. S. government estimates.

The leading manufacturing industries are foodstuff processing, textiles and beverages. A new steel plant went into operation late in 1954; production in 1956 was 90,400 metric tons of steel ingots and 72,400 metric tons of rolled steel products.

Leading exports in 1957 were coffee (75%), petroleum (14%), and bananas (4%). Leading customers were the U. S. (70%), Western Germany (7%), Netherlands Antilles (6%), and Sweden (3%); leading suppliers, the U. S. (61%), Germany (9%), Britain (5%), and France (4%).

NATURAL FEATURES AND RESOURCES. Through the western half of the country, three Andean ranges run north and south, merging into one at the Ecuadorean border. The eastern half is a low, jungle-covered plain, drained by spurs of the Amazon and Orinoco, inhabited mostly by uncivilized Indians. The fertile plateau and valley of the eastern range is the most densely populated part of the country.

Rich in minerals, Colombia has the third largest oil industry in Latin America (70 per cent controlled by U. S. interests). The country is also rich in platinum and has world-famous emerald mines at Muzo in the eastern Andes.

Forest products include vanilla, quinine, ipecac, sarsaparilla, gums and balsams, tanning agents, and dyewoods.

Costa Rica (Republic)

(República de Costa Rica)

Area: 19,695 square miles.
 Population (est. 1958): 1,072,000 (1950: white and mestizo, 97.6%; Negro, 1.9%; Indian, .4%; Asiatic, .1%).
 Density per square mile: 54.4.
 President: Mario Echandi Jiménez.
 Principal city (est. 1957): San José, 133,734 (capital and only large city).
 Monetary unit: Colón.
 Language: Spanish.
 Religion: Roman Catholic (state).

STATUS IN THE WORLD TODAY

Costa Rica, which has always claimed that it was the only Central American nation which spent more on education than it did on its army, has had a long tradition of democracy. It has generally chosen its chief executives by elections instead of coups d'état and has usually been ruled by constitutional governments instead of military juntas or dictators. It is a country of predominantly small farmers producing excellent coffee for export and food crops largely for local consumption.

HISTORY AND GOVERNMENT. Costa Rica, discovered and probably named by Columbus in 1502, proclaimed its independence in 1821. Aside from boundary disputes with Panamá and Nicaragua, Costa Rica's modern history was comparatively tranquil until the spring of 1948.

Under the 1949 Constitution the President and one-house Congress of 45 members are popularly elected for terms of four years.

The army was abolished in 1950. There is a police force of 1,000 and 700 coast guardsmen.

ECONOMIC CONDITIONS. Coffee, bananas, abacá fiber, and cacao are the basic products of Costa Rican agriculture.

Leading customers in 1957 were the U. S. (52%), Western Germany (25%), and Canada (9%); leading suppliers, the U. S. (55%), Western Germany (9%), and Britain (5%). Leading exports were coffee (49%), bananas (39%), and cacao (5%); imports included textiles, machinery, vehicles, and petroleum products.

NATURAL FEATURES AND RESOURCES. Most of Costa Rica is tableland, from 3,000 to 6,000 feet above sea level. Cocos Island (10 sq. mi.), about 300 miles off the Pacific Coast, is under Costa Rican sovereignty; although it is mostly tropical jungle, it is of potential strategic importance in the defenses of the Panama Canal.

The mountain slopes yield such for-

est products as balsa, cedar, dyewood, mahogany and rosewood.

Cuba (Republic)

(República de Cuba)

Area: 44,217 square miles.
 Population (est. 1958): 6,466,000 (white, 72.8%; mulatto, 14.5%; Negro, 12.4%; Asiatic, .3%).
 Density per square mile: 146.2.
 President: Osvaldo Dorticos Torrado.
 Premier: Fidel Castro.
 Principal cities (census 1953): Havana, 785,455 (capital, industrial center); Mariano, 219,278 (Havana suburb); Santiago de Cuba, 163,237 (seaport, mining); Camagüey, 110,388 (cattle, sugar); Santa Clara, 77,398 (tobacco).
 Monetary unit: Peso.
 Language: Spanish.
 Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

The Fidel Castro revolutionary movement, which finally overthrew the Batista dictatorship in Cuba on Jan. 1, 1959, appears to have the full support of the Cuban people behind it, although its position as a right-wing or leftist regime still remains to be determined. Premier Castro has repeatedly insisted that his government harbors no Communists or Communist sympathizers. Yet his air force chief denounced communism in the Castro regime after fleeing from Cuba and Castro's hand-picked President, Dr. Manuel Urrutia, was forced to resign after he, too, had assailed communism in the Havana government.

In his relations with other nations in the hemisphere, Castro has been accused of helping start revolutions in the Dominican Republic, Nicaragua, and Panama by sending men and arms to oppose the governments in these countries, two of which are still dictatorships.

The most controversial edict issued by the Castro government, which has brought it into conflict with United States interests, has been the land reform project, which provides for seizure of all land holdings over and above a certain acreage, depending upon its use, and eventual distribution to landless peasants. The owners, largely United States sugar and cattle ranch owners, will be paid in twenty-year government bonds. The owners claim that the bonds do not constitute just compensation, and that the land cannot be made to produce sugar and cattle as economically when chopped up into small units.

HISTORY. The history of Cuba, largest of the many Caribbean islands, began for

white men with discovery by Columbus on his first voyage in 1492. It was a Spanish colony until 1898, except for brief British occupancy in 1762-63. Open war raged between Cuban rebels and Spanish troops from 1867 to 1878. Fighting broke out again in 1895, and when the United States threatened to intervene, Spain felt its national dignity had been wounded. Strained relations between Spain and the U. S. led to war when the U. S. battleship *Maine* was blown up in Havana harbor in February, 1898. At the termination of the brief Spanish-American War, Spain gave up Cuba.

Until creation of the Cuban republic in 1902, the island was ruled by United States military authorities. For the first thirty-two years of the republic's life, the United States held the right to intervene in any crisis—a right which was invoked during insurrections which occurred in 1906, 1912 and 1917.

GOVERNMENT. Before the fall of Batista, Cuba's President was elected for a 4-year term by direct, popular, universal, and compulsory vote. The Cabinet, though named by the President, was responsible to the Congress—a 54-member Senate and a 130-member House, both elected for four years. Much Cuban lawmaking is done through presidential decree, reviewable by the Supreme Court. On January 6, 1959, the provisional President dissolved Congress and assumed legislative powers, and on February 8, 1959, he signed a provisional Fundamental Law of Cuba.

ECONOMIC CONDITIONS. Half of the employed are engaged in agriculture, which normally accounts for more than 90 per cent of the exports. About two-thirds of the cultivated area is devoted to sugar cane. Other important crops are tobacco, coffee, cacao, fruits, vegetables, henequen, corn, pineapples, and rice.

Manufactured products include sugar, molasses, syrup, brandy, rum, alcohol, cigars, cigarettes, cigar boxes, sponges, cement, cordage, salt, dressed hides, dairy products, and canned goods. The leading industry is the processing of sugar cane and its products.

Leading exports in 1957 were sugar (78%), tobacco and products (6%), and molasses (5%). Leading customers were the U. S. (58%), Japan (7%), and Britain (5%); leading suppliers, the U. S. (58%), Western Germany (3%), Britain (3%), and Netherlands Antilles (2%).

NATURAL FEATURES AND RESOURCES. Long, narrow Cuba has mountainous areas in the southeast, central area, and west, but the rest of the country is flat or rolling. The coastline is indented by many large bays.

Rich mineral beds, mostly in the eastern province of Oriente, include iron, copper, manganese, chromium and nickel. Iron ore reserves are 90 per cent held by U. S. steel interests. Virtually all mineral exports go to the United States; they include nickel, copper ore, and manganese ore.

Czechoslovakia (Republic)

(Československá Republika)

Area: 49,354 square miles.

Population (est. 1958): 13,469,000 (1949: Czech, 67.0%; Slovak, 23.7% German, 3.2%; Magyar, 3.2%; Polish, Jewish and others, 2.9%).

Density per square mile: 272.9.

President: Antonín Novotný.

Premier: Viliam Široký.

Principal cities (est. 1957): Prague (Praha), 978,634 (capital, industrial center); Brunn (Brno), 306,371 (textiles); Bratislava, 246,695 (Danube port); Ostrava (Moravská Ostrava), 199,206 (iron and steel products); Pilsen (Plzeň), 134,273 (Skoda steel works).

Monetary unit: Koruna.

Languages: Czech (67%), Slovak (25%), German (4%), Hungarian, Ukrainian, Polish.

Religions (est. 1947): Roman Catholic, 77%; Czechoslovak Church, 8%; Protestant, 7%; Greek Orthodox, 5%; Jewish, .5%; others and no confession, 7%.

STATUS IN THE WORLD TODAY

Economically, Czechoslovakia is the most important satellite the Soviet Union has since, with the possible exception of East Germany, it was the most highly industrialized nation taken over by the Communists in the wake of World War II. Agriculturally, it is also important in the Soviet scheme of things because, next to Bulgaria, it has the highest percentage of arable land and farm families organized in collectives. Even so, in the process of postwar industrialization it became an importer of foodstuffs and depends upon the Soviet Union for raw materials to keep its industries going. In return it is a chief supplier to the U.S.S.R. of steel, iron, and engineering products, shoes, textiles, and, of course, armaments.

Outwardly, Czechoslovakia is under the firm control of the Communist party. Its members toe the Moscow line faithfully. Many Czechs, whether Communist or not, still hold a measure of resentment against the West for having let them down in 1938 at Munich and are uneasy over the unlikely possibility that some or all of the 2,500,000 Sudeten Germans expelled after World War II might return. But underneath the serene surface, leaders of the Communist party have noted the following trends: a lack of interest among the youth and the workers in identifying

themselves with communism; "unhealthy manifestations" among the workers, such as a tendency to drift into administrative positions as against jobs at the bench and success in extracting economic concessions from the authorities in terms of wages and fringe benefits. One factor is the promotion of workers to take the place of remnants of the middle class who survived in some managerial positions and are systematically moved to production jobs.

One problem inherited from prewar times which the Communists have tried, unsuccessfully, to solve is that of relations between the Czechs and Slovaks. They have invested heavily in Slovakia, which is primarily agricultural, to reduce the inequalities between its industrial development and that of the Czech lands. Although they have established a special provincial executive and a provincial assembly, the supremacy of the central Prague government is manifest and there is abundant evidence of Slovak "separatist" aspirations. Divergent attitudes toward religion also cause conflict.

HISTORY AND GOVERNMENT. It was probably about the fifth century A.D. that the ancestors of the Czechs and Slovaks settled in the region of modern Czechoslovakia. Slovakia passed under Magyar domination, but the Czechs founded the kingdom of Bohemia, which was among the most powerful in Europe for centuries. German encroachment began in the twelfth century and was furthered by the election in 1526 of a Hapsburg as Bohemian King. After the Czechs rebelled in 1618 and were defeated at the Battle of White Mountain in 1620, they were ruled for the next 300 years by the Hapsburgs as part of the Austro-Hungarian Empire. In World War I, Czech and Slovak patriots, notably Thomas G. Masaryk and Milan Stefanik, went abroad to promote support for Czech-Slovak independence, while Czechoslovak legions fought against the Central Powers. On Oct. 28, 1918, Czechoslovakia proclaimed itself a republic; shortly thereafter Masaryk was unanimously elected first President.

Between World Wars I and II, Czechoslovakia supported the League of Nations, formed the Little Entente with Yugoslavia and Rumania, and co-operated closely with France. President Masaryk was succeeded by Dr. Eduard Beneš in 1935.

Meanwhile, Czechoslovakia's German minority, led by Konrad Henlein, began demanding autonomy.

At the Munich conference on Sept. 30, 1938, France and Britain agreed that the Nazis could take the Czech Sudetenland

on the German border. Dr. Beneš resigned on October 5, and Czechoslovakia became a federal union in the German orbit. The Poles, meantime, seized Czechoslovakia's Teschen area, and Hungary had taken areas in Slovakia and Ruthenia. In March, 1939, the Nazis set up Slovakia as a puppet state, declared Bohemia and Moravia to be Nazi protectorates, and gave Hungary the remainder of Ruthenia. Both Slovakia and Bohemia-Moravia were occupied by German troops. Beneš organized a government-in-exile in London in 1940.

Soon after the government returned to Czechoslovakia in April 1945, Ruthenia, the easternmost province, was ceded to Russia. On July 3, 1946, Communist Klement Gottwald formed a six-party coalition Cabinet. Amid increasing pressure from Moscow, Gottwald's Cabinet remained in office until a bloodless coup d'état of Feb. 23-25, 1948, when the Communists seized complete control. President Beneš resigned June 7 following parliamentary elections in which the Communists and their allies were unopposed. Parliament then elected Gottwald to the presidency.

Czechoslovakia's Soviet-type Constitution makes the 300-member unicameral Parliament the supreme organ of the state. The government is headed by the President, elected by Parliament for a seven-year term. The Prime Minister and his Cabinet are appointed by the President but responsible to Parliament.

ECONOMIC CONDITIONS. Nationalization of all enterprises with more than fifty employees as well as concerns of any size operating in key industries was completed between 1945 and 1948. Distribution of large estates had already been accomplished by the 1919 Land Reform Law. Total collectivization of agriculture was the professed aim of the Communist regime.

Sugar beets, wheat, corn, and high-grade barley and hops for beer brewing are cultivated in the low-lying areas. In more elevated regions, the cultivation of potatoes, rye, and oats predominates. Higher lands are also used for growing fodder crops or for grazing. In 1957 there were 4,107,000 cattle, 956,000 sheep, and 5,285,000 hogs.

Abundance of coal and presence of iron ore give the country a big metallurgical industry. The Skoda steel works at Pilsen are among the largest in Europe.

Other industries are glass, porcelain, and pottery making, while large forest areas provide raw material for the timber, paper, and cellulose industries. Also highly developed are the textile industries, including cotton, wool, flax, and jute production, and

the shoe industry. The famous Bat'a shoe factories are at Zlín.

Foreign trade is a state monopoly managed by government corporations.

NATURAL FEATURES AND RESOURCES. Czechoslovakia lies athwart the great central European watershed between the Baltic, Black, and North Seas. Mountains form several of its boundaries. Many of the valleys are made fertile by the Danube, Elbe, and Vltava (Moldau) rivers and their tributaries.

Most important of Czechoslovakia's varied minerals are pit coal and lignite, with the principal coal fields in the Ostrava-Karvinná area, connected with the Polish fields of Upper Silesia.

Production of iron ore in 1957 was about 2,810,000 tons; much ore is imported to meet the demands of Czechoslovakia's flourishing iron and steel industry. Excellent porcelain raw materials, particularly kaolin, are obtained in western Bohemia and southern Moravia. Other minerals are antimony, gold, magnesite, oil, uranium, silver, and zinc.

Denmark (Kingdom)

(Kongeriget Danmark)

Area: 16,577 square miles.

Population (est. 1958): 4,500,000 (almost entirely Danish).

Density per square mile: 271.5.

Sovereign: King Frederick IX.

Prime Minister: H. C. Hansen.

Principal cities (est. 1957): Copenhagen, including suburbs, 950,700 (capital); Århus, 118,700 (shipbuilding); Odense, 107,400 (meat, dairy products); Ålborg, 84,200 (seaport).

Monetary unit: Krone.

Language: Danish.

Religion: Evangelical Lutheran (state).

STATUS IN THE WORLD TODAY

Smallest of the Scandinavian countries, Denmark adheres enthusiastically and without reservation to the Free World in the current cold war. It has approved the construction of seven airfields on Danish soil under the NATO program and despite its small size maintains an army of some 100,000 men plus 25,000 in the Home Guard. A basic tenet of its foreign policy is friendship with the United States. Its economy depends primarily on the export of dairy and meat products and the earnings of its merchant marine, which is one of the largest in the world on a per-capita basis.

HISTORY AND GOVERNMENT. The smallest of the three Scandinavian countries, Denmark emerged with the estab-

lishment of the Norwegian dynasty of the Ynglinger in Jutland at the end of the eighth century. It was subjugated and Christianized by the German King Henry I in 934. Canute the Great (1014-1035) conquered England in 1015. In the late twelfth and early thirteenth centuries Denmark became for a time the dominant power in Northern Europe.

Denmark supported Napoleon, for which she was punished at the Congress of Vienna in 1815 by the loss of Norway to Sweden. In 1864 Bismarck, together with the Austrians, made war on the little country as an initial step in the unification of Germany. Denmark was neutral in World War I. In 1939 Denmark signed a ten-year pact with Hitler, but less than a year later she was invaded by the Nazi Fuehrer. King Christian X cautioned his fellow countrymen to accept the occupation, but there was widespread resistance against the Nazi occupation. In 1944 Iceland declared its independence from Denmark, thus putting an end to a union that had existed since 1380.

Denmark has been a constitutional monarchy since 1849. Legislative power is held jointly by king and parliament. The Constitution of 1953 provides for a unicameral parliament called the *Folketing*, consisting of 179 popularly elected members serving for four years. The cabinet is presided over by the king, who appoints the prime minister. Women are eligible to succeed to the throne.

RULER. Frederick IX, of the house of Schleswig-Holstein-Sonderburg-Glücksburg, born March 11, 1899, became King April 20, 1947. In 1935 he married Princess Ingrid of Sweden, by whom he has three daughters: Margrethe (heiress apparent, born April 16, 1940), Benedikte (born 1944), Anne-Marie (b. 1946).

ECONOMIC CONDITIONS. Livestock in July, 1957, included 3,205,000 cattle, 5,438,000 hogs, 24,475,000 poultry.

The largest industries are food-processing and iron and metal. Others include chemicals and pharmaceuticals wood and paper, clothing, textiles, machinery, beverages, and leather.

Leading suppliers in 1957 were Great Britain (24%), Western Germany (19%), and the U. S. and Canada (10%). Chief customers were Great Britain (27%), Western Germany (20%), the U. S. and Canada (8%). Leading exports were meat and meat products (27%), dairy products, largely butter and eggs (24%), machinery (12%), and live meat animals (6%). Leading imports: coal, coke, petroleum and petroleum products, machinery, vehicles, and textiles.

NATURAL FEATURES AND RESOURCES. Denmark, only three miles from Sweden

at the closest point, consists of the Jutland peninsula and the islands in the Baltic. The largest islands are Zealand, the site of Copenhagen; Fünen; and far to the east, Bornholm. The narrow waters to the north are called Skagerrak; and to the east, Kattegat.

The terrain of the whole kingdom is low but not flat. Its highest point is about 500 feet, and there are many lakes, ponds and short rivers. Sand dunes line the western Jutland coast almost without a break.

Mineral resources are negligible. Large quantities of coal and coke must be imported. Peat bogs supply an important source of fuel.

The fishing industry, centered at Copenhagen but carried on also in the shallow fiords and in the deeper waters of the Baltic, North Sea and Skagerrak, is a basic part of the Danish economy.

Outlying Territories

FAEROE ISLANDS—Status: Autonomous part of Denmark.

Area: 540 square miles.

Population (est. 1955): 34,000.

Capital: Thorshavn (pop. 1955: 6,014).

Governor general: C. A. Vagn-Hansen.

Principal products: cod, whale oil, cod liver oil, wool, fertilizers, skins and leather.

This group of 21 islands, lying in the North Atlantic about 200 miles northwest of the Shetland Islands, joined Denmark in 1386 and has since been part of the Danish kingdom. The islands were occupied by British troops during World War II, after the German occupation of Denmark. The principal pursuits are fishing and sheep grazing. The Faeroes have home rule under a bill enacted in 1948; they also have two representatives in the Danish Folketing.

GREENLAND—Status: Integral part of Kingdom of Denmark.

Area: 839,782 square miles (almost 85 per cent glacier).

Population (except 1955): 27,101 (native except for 1,269 Europeans).

Capital: Godthaab (second governor's seat, Godhavn).

Governor general: Poul Hugo Lundsteen.

Foreign trade (1956): exports, 43,615,000 kr. (53.5% to Denmark); imports, 78,390,000 kr. (87.2% from Denmark). Chief exports: cryolite (41,792 metric tons), fish and products, hides and skins.

Greenland, the world's largest island, was colonized in 985-86 by Eric the Red. Danish sovereignty, which covered only the west coast, was extended over the whole island in 1917. In 1941 the United States signed an agreement with the Danish minister in Washington, placing it under U. S. protection during World War II but maintaining Danish sovereignty. A definitive

agreement for the joint defense of Greenland within the framework of NATO was signed on April 27, 1951. A large U. S. air base at Thule in the far north was completed in 1953.

Under 1953 amendments to the Danish Constitution, Greenland is part of Denmark and has two representatives in the Danish Folketing. There is a popularly elected council.

Greenland is the world's only source of natural cryolite, important in the manufacture of aluminum. Large deposits of lead, zinc and wolfram were found on the eastern coast after World War II.

Dominican Republic (República Dominicana)

Area: 18,703 square miles.

Population (est. 1958): 2,791,000 (1950: mestizo and mulatto, 60%; white, 28%; Negro, 12%).

Density per square mile: 149.2.

President: Héctor Trujillo y Molina.

Principal cities (estimated 1957): Ciudad Trujillo, 294,830 (capital; sugar); Santiago de los Caballeros, 66,804 (tobacco); San Francisco de Macoris, 22,223 (sugar); San Pedro de Macoris, 21,350 (sugar port).

Monetary unit: Dominican peso.

Language: Spanish.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

The Dominican Republic, one of two remaining dictatorships in the Caribbean area, has been under the thumb of Rafael Leonidas Trujillo, who now calls himself Generalissimo, since 1930. He has permitted no freedom of press or speech or opposition political parties except for a brief period in 1946-47, when he allowed the Communists to function openly and then sent the leaders into exile. Even government officials belonging to the country's one political party, which he heads, have learned of their "resignations" in the newspapers. His enemies have disappeared mysteriously in Cuba, Mexico, Haiti, and the United States. It is generally believed that he is a silent partner in many business enterprises in the country since none can function without his approval.

Despite the lack of freedom in his own country, Trujillo supports the Free World in the field of foreign affairs and has offered land for settlement by refugees from European persecution. Since the overthrow of the Batista regime in Cuba—Ciudad Trujillo shelters both Batista and ex-President Perón, of Argentina—he apparently has worried about an insurrection against his administration launched from nearby democracies. He has bought arms and airplanes and has spoken of "defend-

ing" neighboring Haiti from any "invasion" which might be directed against him.

A positive aspect of the Trujillo regime has been its economic policy. It has built modern housing for the workers, more schools for children, diversified the economy which was formerly dependent entirely on sugar production, and stimulated moderate industrialization. Santo Domingo, the capital, was completely rebuilt after a shattering earthquake and then renamed by Trujillo for himself. New hotels have been constructed in an attempt to attract tourists.

HISTORY. The Dominican Republic (formerly San Domingo) occupies the eastern two-thirds of the island which Columbus named La Española (now Hispaniola) when he discovered it on his first voyage in 1492. The other third is occupied by the republic of Haiti. The capital, Ciudad Trujillo, founded in 1496, is the oldest white settlement in the Western Hemisphere.

The Dominican Republic was variously under Spanish, French and Haitian domination until it established its independence in 1865 and then plunged into an unstable political history. U. S. Marines occupied it from 1916 to 1924, when a new Constitution was adopted. In 1930, Rafael Leónidas Trujillo y Molina, an army general, was elected President. The Dominican Republic has a bicameral Congress with both Senators and Deputies elected by direct vote for 5 years. The President is also elected by direct vote for 5 years but he may be re-elected indefinitely and rule by decree without Congressional approval. **ECONOMIC CONDITIONS.** Primarily agricultural, the country produces sugar, coffee, cacao, tobacco, bananas, rice, corn, cassava, beans, and sweet potatoes. Cattle raising is of growing importance.

Sugar refining is the only important industry, although several new industries have been established in recent years.

Leading exports in 1957 were sugar (55%), coffee (16%), and cacao (8%). Chief customers were the U. S. (40%) and Britain (33%); leading suppliers, the U. S. (63%) and Western Germany (6%). The main imports are cotton goods, iron and steel products, chemicals, and machinery.

NATURAL FEATURES. Crossed from northwest to southeast by a mountain range with maximum elevations exceeding 10,000 feet, the country has fertile, well-watered land on the northeast side, where nearly two-thirds of the population lives. The southwest part is arid and with poor soil except around Ciudad Trujillo. The country has many good harbors.

Ecuador (Republic) (República del Ecuador)

Area: 105,743 square miles.

Population (est. 1958): 4,007,000 (1942: mestizo, 41%; Indian, 39%; white, 10%; Negro, 5%; others, 5%).

Density per square mile: 37.9.

President: Camillo Ponce Enríquez.

Principal cities (est. 1955): Guayaquil, 304,571 (chief port); Quito, 244,859 (capital); Cuenca, 60,963 (trading center); Ambato, 39,975 (commercial center).

Monetary unit: Sucre.

Languages: Spanish, Quéchua.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Although Ecuador has rich natural resources, its economic development on a large scale has been hampered by poor communications and the geographic fact that it is cut up into five regions by ranges of the Andes mountains. World War II gave it a start toward a better economic future when the demand for war materials boosted its exports of quinine, balsa wood, rubber, oil, and kapok, but the opening up of undeveloped territory is still a big job. Its principal exports are bananas, cocoa and coffee. Construction of a steel mill may lead to exploitation of such items as copper, manganese, and oil. The country, however, has been relatively free of problems which have beset other nations—political and economic instability—and in recent years its currency has been relatively stable while the rise in the cost of living has not been so great as in other South American countries. Loans will be necessary for any long-range economic program since its own resources are insufficient.

HISTORY. Mostly forested and mountainous and a little larger than Colorado, Ecuador has a long history replete with the forceful rule of dictators. The Spanish under Francisco Pizarro conquered the land in 1532 by defeating the Inca Atahualpa. The first revolt against Spain occurred in 1809, but the victory was not complete until the Battle of Pichincha on May 24, 1822. Ecuador then joined Venezuela and Colombia in a confederacy founded by Simón Bolívar and known as Colombia, but withdrew amicably and became independent in 1830. The country's subsequent history has been largely one of dictatorships.

For more than a hundred years, Ecuador disputed its boundary with Peru, frequently resorting to arms. After hostilities started again in 1941, both nations submitted to mediation, and in 1944 Ecuador lost most of the disputed area. The dispute broke out anew in 1951.

GOVERNMENT. Under the 1946 (16th) Constitution, Ecuador elects a President for four years by direct vote, and he is ineligible for further service until at least one term intervenes. The Congress is bicameral, with a Senate and Chamber of Deputies.

ECONOMIC CONDITIONS. Although agriculture is the basis of Ecuador's economy, less than 12,000,000 acres are devoted to it. Cacao, the chief crop, is grown in coastal regions and lower river valleys. The plateaus and mountain valleys are used for grazing and dairying, and raising cereals and potatoes. After textiles, one of Ecuador's main industries is the manufacture of Panama hats, made of Toquilla straw.

Leading exports in 1957 were bananas (52%), coffee (22%), and cacao (14%). Leading customers were the U. S. (57%), Germany (12%), and Colombia (5%); leading suppliers, the U. S. (52%), West Germany (11%), and Belgium (5%).

NATURAL FEATURES AND RESOURCES. Two high and parallel ranges of the Andes, traversing Ecuador from north to south, are topped by tall volcanic peaks.

Ecuador produces gold, silver, copper, lead, and petroleum. It is the world's chief source of light, strong balsa wood.

Egypt (Province of U.A.R.) (Misr)

Egypt and Syria united in February, 1958, to form the United Arab Republic.

Area: 386,100 square miles.

Population (est. 1958): 24,026,000 (1944: Egyptian, 95.4%; Arabian, 1.7%; Greek, .6%; others, 2.3%).

Density per square mile: 62.2.

President: Gamal Abdel Nasser.

Principal cities (est. 1956): Cairo, 2,673,800 (capital); Alexandria, 1,261,100 (chief port); Port Said, 203,100 (Suez Canal terminus); Tanta, 164,800 (railroad center, Nile delta).

Monetary unit: Egyptian pound (£E).

Language: Arabic.

Religions: Moslem, 91%; Christian (mostly Copt and Greek Orthodox), 8%; others, 1%.

STATUS IN THE WORLD TODAY

The primary objective of President Nasser, since he took over the regime in Egypt, and later included Syria in the United Arab Republic, has been to become the leader of all Arab states in opposition to the Western nations, which he considers colonial and imperialist. His fortunes have risen and fallen in this respect in direct proportion to his diplomatic successes and failures. When he nationalized

the Suez Canal, he became a hero in the Arab world because he had presented Great Britain and France with a *fait accompli* about which they could do nothing without being branded aggressors. Yet when they did intervene in 1956, at the time of Israel's attack against Egypt, the speed with which the Israeli armed forces overwhelmed Egypt's army in the Sinai peninsula dealt a severe blow to Nasser's military prestige. His interference in the internal affairs of other Arab states in trying to make himself the head of a Pan-Arab movement brought him in conflict with other Arab leaders. Jordan and Lebanon reacted violently against Radio Cairo's propaganda. Saudi Arabia was less than happy as its oil royalties dropped because Egyptian sabotage of the Suez Canal blocked oil shipments to Europe. Tunisia broke off diplomatic relations because of Egypt's interference. The Sudan stressed its independence after more than half a century of being governed jointly by Egypt and Great Britain.

Relations with these other Arab states began to improve, however, with the increase of Communist influence in the Middle East. Nasser had assigned 80% of Egypt's cotton crop to the Soviet bloc in return for armaments and help in constructing the Aswan High Dam. But the U.S.S.R. was dumping Egyptian cotton on the world market at prices below those charged by Egypt, and Egyptian importers were becoming irritated at the poor quality of goods they were receiving from behind the Iron Curtain. Egypt was willing to accept Soviet aid, but it was definitely annoyed at any Communist attempts to share in any Arab government, a fact which led Nasser to denounce Arab Communists and to accuse the Soviet Union of working against true Arab nationalism in Iraq. Cairo is now soft-pedaling its propaganda broadcasts which formerly were aimed at inciting pro-Nasser agitation against established regimes and is working at mending its political fences in the Arab world. It is still willing to accept economic aid from the Soviet Union, especially in connection with construction of the Aswan Dam, but is increasingly aware of the danger of Communist political activity. It still has one thing in common with the other Arab states—its hatred of Israel—on which to build its Pan-Arab hegemony.

In September, 1959, the Soviet Union finally signed a contract for technical assistance and equipment for the first stage of the dam.

HISTORY AND GOVERNMENT. Egyptian history dates back to about 4000 B.C. when the kingdoms of upper and lower Egypt,

already highly civilized, were united. Egypt's "Golden Age" coincided with the eighteenth and nineteenth dynasties (sixteenth to thirteenth centuries B.C.), during which the empire was established. Persia conquered Egypt in 525 B.C.; Alexander the Great subdued it in 332 B.C., and then the dynasty of the Ptolemies ruled the land until 30 B.C., when Cleopatra, last of the line, committed suicide and Egypt became a Roman province. From 641 to 1517 the Arab Caliphs ruled Egypt, and then the Turks took it and made it part of their Ottoman Empire. Napoleon's armies occupied the country from 1798 to 1801. In 1805, Mohammed Ali, leader of a band of Albanian soldiers, became Pasha of Egypt. After completion of the Suez Canal in 1869, both the French and British took increasing interest in Egypt.

British troops occupied Egypt in 1882, and British resident agents became its actual administrators, though it remained under nominal Turkish sovereignty. On December 18, 1914, this fiction was ended and Egypt became a protectorate of Great Britain.

Pressure by Egyptian nationalists forced Britain to declare Egypt an independent, sovereign state on Feb. 28, 1922, although the British reserved rights for the protection of the Suez Canal and the defense of Egypt. On Aug. 26, 1936, by an Anglo-Egyptian treaty of alliance, all British troops and officials were to be withdrawn, except from the Suez Canal zone. When World War II started, Egypt remained neutral. British imperial troops finally ended the Nazi threat to Suez in 1942 in the battle of El Alamein, which took place west of Alexandria.

In Oct., 1951, Egypt abrogated the 1936 treaty and the 1899 Anglo-Egyptian condominium of the Sudan. (See Sudan.) Rioting and attacks on British troops in the Suez Canal zone followed, reaching a climax in Jan., 1952. The army, led by Gen. Mohammed Naguib, seized power on July 23, 1952. On July 26, King Farouk abdicated in favor of his infant son. Naguib took over the premiership on Sept. 7, 1952, and promised far-reaching reforms. The monarchy was abolished and a republic proclaimed on June 18, 1953, with Naguib holding the posts of both provisional President and Premier. He relinquished the latter post on April 18, 1954, to Gamal Abdel Nasser, leader of the ruling military junta. Naguib was deposed by the Cabinet and junta on Nov. 14, 1954.

Nasser was confirmed as President in a popular referendum on June 23, 1956. According to the provisional Constitution of the United Arab Republic announced by Nasser in February, 1958, legislative power is vested in a "Council

of the Nation" composed of members chosen by decree of the President of the United Arab Republic. Executive power is vested in the President of the United Arab Republic who is assisted by Ministers appointed by him and responsible to him. Political parties have been abolished by Nasser for an indefinite period. In addition to the organs set up for joint jurisdiction over Egypt and Syria, certain executive organs were created to deal separately with these two provinces of the U.A.R. As of October 7, 1958, Egypt has a 15-member Executive Council appointed by and responsible to the President of the U.A.R.

SOCIAL AND ECONOMIC CONDITIONS. The majority of the people are Sunni Moslems. The Christians are mainly Copts with an admixture of Armenian, Syrian, and Maronite sects. The population divides generally into fellahin (peasantry) and townspeople of the same blood, the Bedouin or nomad Arabs of the desert, and the Berbers, who occupy the Nile valley between Aswan and Dongola. The foreigners are chiefly Greeks (whose main center is Alexandria), French, British and Italians. The density of population in the small inhabited area in the Nile valley and delta (about 13,600 sq. mi.) is far greater than that of either the Netherlands or Belgium.

Agriculture is the chief industry, engaging more than half the population. Only about 3.5 per cent of the total area is arable, and only about 6,000,000 acres are actually under cultivation, almost entirely in the Nile valley and delta. More than half the cultivated area comprises farms of less than 20 acres. Irrigation is indispensable to agriculture; the Aswan reservoir above the first cataract of the Nile holds up to 5,500,000,000 cubic meters of water and the reservoir of Gebel Aulia, in the Sudan, 2,000,000,000 cubic meters. In the delta and in middle Egypt, where perennial or canal irrigation is possible, two or three crops a year can be grown. The chief cash crop is cotton, of which Egypt is one of the world's leading producers.

Industry includes sugar refining, cotton ginning, cement manufacture, milling and pottery, soap and perfume making. The Sugar Company of Egypt holds a monopoly on the sugar refining industry.

In 1957, Egypt's chief customers were Czechoslovakia (15%), Japan (7%); Western Germany (7%), and the Sudan (6%); leading suppliers, the Soviet area (22%), the United States and Canada (9%), Britain (12%), Western Germany (11%), and Italy (6%). Leading exports were raw cotton (72%) and rice (7%).

Imports included wheat, petroleum, ferti-

lizers, iron and steel products, textiles, and machinery and vehicles.

Navigable throughout its course in Egypt, the Nile is used largely as a means of cheap transport for heavy goods. The principal port is Alexandria.

NATURAL FEATURES AND RESOURCES. Egypt, at the northeast corner of Africa, is a very rough square, with the historic Nile flowing northward through its eastern third. On either side of the Nile valley are desert plateaus, spotted with oases. In the north, toward the Mediterranean, plateaus are low, while south of Cairo they rise to a maximum of 1,015 feet above sea level. At the head of the Red Sea, at the northeast corner of Egypt, is the triangular Sinai peninsula, between the Suez Canal and Israel.

The Nile delta starts 100 miles south of the Mediterranean and fans out to a sea front of 155 miles between Alexandria and Port Said. From Cairo north, the Nile branches into many streams, the principal of which are the Damietta and the Rosetta, joined by a network of canals.

The most important minerals are manganese ore, phosphate, and petroleum. Gold, iron ochres, nickel, sodium carbonate, sulfate talc, and tungsten also are mined.

Except for a narrow belt on the Mediterranean, Egypt lies in an almost rainless area, in which high daytime temperatures fall quickly at night.

SUEZ CANAL. The Suez Canal, in Egyptian territory between the Arabian Desert and the Sinai peninsula, is an artificial waterway about 100 miles long between Port Said on the Mediterranean and Suez on the Red Sea. Construction work, directed by the French engineer Ferdinand de Lesseps, was begun April 25, 1859, and the canal was opened Nov. 17, 1869. The cost was 432,807,882 francs. The concession is held by an Egyptian joint stock company, *Compagnie Universelle du Canal Maritime de Suez*, in which the British government holds 353,504 out of a total of 800,000 shares. The concession was to expire Nov. 17, 1968, but the company was nationalized July 26, 1956, by unilateral action of the Egyptian government. As a result of hostilities the canal was blocked between Nov., 1956, and March, 1957. In July, 1958, an agreement was finally signed in Geneva between the United Arab Republic and the shareholders of the former Suez Canal Company. Compensation was arranged for the period of twelve years which was still to have elapsed between 1956 and the end of the Company's 99-year concession in 1968. In the last few years, Nasser has been seizing or delaying cargoes coming from or going to Israel on the grounds that the U.A.R. still considers itself in a state of war with Israel.

Estonia

Area: 17,400 square miles.

Population (est. 1956): 1,100,000 (1940: Estonians, 88%; Russians, 9%; Germans [Balts], 1%; others, 2%).

Density per square mile: 63.2.

Principal cities (est. 1956): Tallinn, 257,000 (capital); Tartu, 60,000 (university town).

Language: Estonian (Finno-Ugrian).

Religions: Lutheran, 78%; Greek Orthodox, 19%; others, 3%.

HISTORY AND GOVERNMENT. Born out of World War I, this small Baltic state enjoyed two short decades of independence before it was absorbed again by its powerful neighbor, Russia. In the thirteenth century, the Estonians had been conquered by the Teutonic Knights of Germany, who reduced them to serfdom. In 1521, the Swedes took over, and the power of the German (Balt) landowning class was curbed somewhat. But after 1721, when Russia succeeded Sweden as the ruling power, the Estonians were subjected to a double bondage—the Balts and the tsarist officials. The oppression lasted until the closing months of World War I, when Estonia finally achieved independence.

Shortly after the start of World War II, the nation was occupied by Russian troops and was incorporated as the sixteenth republic of the U.S.S.R. in 1940. Germany occupied the nation from 1941 to 1944, when it was retaken by the Russians. Most of the nations of the world, including the United States and Great Britain, have not recognized the Soviet incorporation of Estonia.

Ethiopia (Kingdom)

(Abyssinia)

Area: 457,142 square miles.*

Population (est. 1956): 20,000,000* (Abyssinian [Amhara], 20%; Galla, 50%; others, 30%).

Density per square mile: 35.0.*

Ruler: Emperor Haile Selassie I.

Prime Minister: (Post vacant.)

Principal cities (est. 1956): Addis Ababa, 400,000 (capital); Asmara, 123,083 (capital, Eritrea); Dessié, 50,000 (grain center); Harar, 40,000 (coffee); Diré Dawa, 30,000 (railway workshops).

Monetary unit: Ethiopian paper dollar.

Languages: Amharic, Arabic.

Religions: Copt (Christian), Moslem.

* Including Eritrea.

STATUS IN THE WORLD TODAY

Isolated for many centuries from the rest of the world by a belt of mountains, Ethiopia is struggling to modernize itself and to catch up with the twentieth cen-

tury economically. Pro-Western in its foreign policy, it is receiving technical and monetary assistance from many sources: the World Bank, the United Nations, the United States Point Four program, and Belgian, Swiss, French, and even Russian advisers. Despite active propaganda by a relatively large Soviet diplomatic delegation in Addis Ababa, American military communications installations have been erected in the country.

Before World War II, Ethiopia's principal link with the outside world was the railroad to Djibouti in French Somaliland. Since 1952, the former Italian colony of Eritrea has been federated with Ethiopia, giving it another outlet to the sea through the port of Massaua. Trade has increased and exploration for mineral resources has been speeded up.

HISTORY AND GOVERNMENT. The ancient empire of Ethiopia attained its independence long before the creation of any of the modern states of Africa. Present-day Ethiopia became a sovereign state as an outgrowth of the consolidation of a number of former kingdoms which owed allegiance to the Ethiopian emperor, the King of Kings. Most of these old kingdoms (Shoa, Tigri, Gojjam, and others) are today provinces of Ethiopia.

The Ethiopian kingdom is one of the few African countries which have a recorded history. Men have migrated here from Asia Minor for well over two thousand years. The chief race today is the Amhara, numbering 2,000,000. They were converted to Christianity by the Egyptian Coptic Christians. Along with the Amharic people, there have come to Ethiopia over the centuries Greeks, Jews, Arabs, and Indians, so that today the kingdom is a mixture of peoples speaking over seventy different languages.

The fact that the ruling Amharic group have had to retain control over the country in the face of frequent tribal resistance accounts in part for some of the authoritarian aspects of Ethiopian government today. The kingdom remains essentially feudal in nature. At the top is the Emperor, Haile Selassie I (born 1891, crowned Emperor 1930), who traces his ancestry to the Queen of Sheba and to Menelek, King Solomon's first son. He retains virtually full governmental powers in his own hands, appointing the ministers who assist him and the governors who rule the outlying provinces.

In October, 1935, anxious to expand his small colonial empire, Mussolini invaded Ethiopia. Addis Ababa fell on May 5, 1936. With Italian Somaliland and Eritrea, Ethiopia became part of Italian East Africa until British and Ethiopian troops reconquered the country in 1941.

ECONOMIC CONDITIONS. Ethiopia is generally fertile, predominantly agricultural and pastoral, with many regions yielding two crops a year. The chief crops are maize, wheat, barley, rye, cotton, sugar cane, millet, hemp, vegetables, coffee, and teff (the common bread grain). The country's inadequate transport system, however, makes crop growing largely a local industry.

The country grazes several million cattle, and many goats and sheep. Horses and mules are bred extensively as pack animals and mounts. There is little manufacturing except for small native industry, although the Italians built some industrial plants during their five-year occupation.

Chief exports in 1957 were coffee (53%), hides and skins (11%), and oil-seeds (12%). Leading customers were the United States (25%), Aden (21%), and Italy (19%); leading suppliers, Italy (15%), India (14%), and the United States (13%). Major imports were cotton piece goods, machinery, sugar, and salt.

NATURAL FEATURES AND RESOURCES. Over its main plateau-land, Ethiopia has several high mountains. The Blue Nile, or Abbal, rises in the northwest and flows in a great semicircle east, south, and northwest before entering Sudan. Its chief reservoir, Lake Tana, lies in the northwestern part of the plateau.

Gold, produced from placer mines worked by natives in the south and west, is Ethiopia's main mineral. Platinum also is mined in fair commercial quantities. Other minerals are rock salt, cinnabar, copper, iron, mercury, mica, potash, and sulfur. Oil deposits are believed to exist, and all drilling rights have been sold to the Sinclair Refining Company of the United States.

ERITREA—Status: Federated with Ethiopia.

Area: 47,875 sq. mi.

Population (est. 1955): 1,104,000.

Capital: Asmara (population: 117,000).

Sovereign: Haile Selassie I.

Chief Executive: Fitaaurari Asfaha Wolde-mikael.

Agricultural products: coffee, barley, tobacco, sesame, hides, skins.

Minerals: gold, salt, potassium salts.

Sea product: pearls.

The first Italian inroad into Eritrea came in 1870 when the port of Assab and adjacent territory were bought from a native sultan; with British approval, Italian troops occupied Massaua in 1885. By a decree of Jan. 1, 1890, Italian possessions along the Red Sea were united into the colony of Eritrea.

As an autonomous, self-governing area, Eritrea has its own elected assembly which selects the chief executive. It is also rep-

resented in the Ethiopian Parliament. Matters reserved to the Ethiopian government include defense, foreign affairs, foreign trade, finance, communications.

The principal native elements are the Ethiopians and Tigrés, who have close ethnic, linguistic, and religious ties with peoples in neighboring Ethiopia. Irrigation is essential in the coastal plains, and agriculture is practiced largely on the interior plateau (average elevation: 6,500 ft.).

Finland (Republic) (Suomen Tasavalta)

Area: 130,119 square miles.
Population (est. 1958): 4,376,000 (Finnish, 90%; Swedish, 10%).
Density per square mile: 33.6.
President: Urho Kekkonen.
Premier: Veino J. Sukselainen.
Principal cities (est. Jan. 1, 1957): Helsinki, 428,000 (capital); Tampere, 115,700 (textiles, paper); Turku (Åbo), 114,400 (seaport, shipbuilding); Lahti, 60,500 (glass, lumber); Oulu, 49,300 (seaport, shipbuilding).
Monetary unit: Markka (FM).
Languages: Finnish, Swedish.
Religions (1949): Evangelical Lutheran, 97%, Greek Orthodox, 2%; others, 1%.

STATUS IN THE WORLD TODAY

Finland's foreign policy since the end of World War II has had to take into account two fundamentally conflicting factors: the fact that public opinion in this democracy is oriented toward the Free World and especially toward friendship with the United States; and the harsh geographic reality that it is a neighbor of the U.S.S.R. and must trade with the Soviets as a matter of economic necessity. Yet, despite tricky propaganda campaigns and economic pressure, the Communists have not succeeded in electing enough representatives in the government to give the Kremlin any sort of voice in domestic affairs. It has, however, been successful in obtaining trade pacts and a treaty of friendship and mutual assistance.

Despite the loss of its principal industrial area to Soviet Russia, Finland has managed to expand industry, to balance its budget, and to keep its currency stable. It occupies a special place of esteem in the United States because it was the only nation after World War I which continued to make semi-annual payments on its debts when larger countries were defaulting on their war obligations.

HISTORY AND GOVERNMENT. At the end of the seventh century the Finns, probably of Mongolian origin, came to

Finland from their Volga settlements. Their repeated raids on the Scandinavian coast impelled Eric IX, the Swedish king, to conquer the country in 1157 and bring it into contact with Western Christendom. By 1809 the whole of Finland was conquered by Alexander I of Russia, who set up Finland as a Grand Duchy.

The first period of Russification (1899-1905) resulted in a lessening of the powers of the Finnish Diet. The Russian language was made official, and the Finnish military system was superseded by the Russian. The pace of Russification was intensified from 1908 to 1914. When Russian control was weakened as a consequence of the March Revolution of 1917, the Finnish Diet on July 20, 1917, proclaimed Finland's independence, which became complete on December 6, 1917.

When its territorial demands on Finland were rejected, the Soviet Union attacked Finland on November 30, 1939. The Finns made an amazing stand of three months. Finland finally capitulated, ceding 16,000 square miles to the U.S.S.R. Under German pressure the Finns joined the Nazis against Russia in 1941, but were defeated again, and ceded the Petsamo area to Soviet Russia.

The President of the Republic of Finland, chosen for six years by the Electoral College of 300 members, appoints the Cabinet. The single-chambered Diet, the *Eduskunta*, consists of 200 members popularly elected for three-year terms by proportional representation.

ECONOMIC CONDITIONS. The chief crops are oats, barley, rye, and potatoes. Grazing lands are extensive. In 1957, there were 1,845,000 cattle, 457,000 sheep, 467,000 hogs, and 151,701 reindeer.

The leading Finnish manufactures are wood and paper (about one-third the total value), food, luxury items, machinery and textiles. With the cession of the Karelian isthmus and the city of Viipuri to the U.S.S.R., Finland lost valuable manufacturing areas. Helsinki is the principal industrial center.

Chief exports in 1957 were wood and wood products (30%), paper (27%), and wood pulp (20%). Leading customers were Britain (21%), U.S.S.R. (20%), Western Germany (9%), and the U. S. (6%); leading suppliers, U.S.S.R. (17%), Britain (14%), Western Germany (12%), and the U. S. (7%).

NATURAL FEATURES AND RESOURCES. Finland stretches 700 miles from the Gulf of Finland on the south to Soviet Petsamo, north of the Arctic Circle. Off the southwest coast are the Åland Islands (approximately 300), controlling the entrance to the Gulf of Bothnia. Finland has more than 60,000 lakes. Of the few rivers, only

the Oulu (Uleå) is navigable to any important extent.

Finland has no coal or oil, and many of its ore deposits are remote from transportation. Finland's sulfide ore is 4 per cent copper, 26 per cent sulfur and 27 per cent iron, with some zinc, cobalt, gold, and silver. Limestone, soapstone and red granite deposits are extensive, and uranium

deposits are believed to exist. Wood and peat are the only natural fuels.

More than a third of Finland is covered with high quality timber, the nation's richest natural resource.

The Swedish-populated Åland islands (581 sq. mi.) have an autonomous status under a law passed in 1951.

FRANCE AND THE FRENCH UNION

France (Republic) (République Française)

Area: 212,736 square miles.
Population (est. 1958): 44,500,000 (1954: French, 96.6%; others, 3.4%).
Density per square mile: 205.8.
President: Charles de Gaulle.
Premier: Michel Debré.
Principal cities (census 1954): Paris, 2,850,189 (capital); Marseilles, 661,492 (chief port); Lyons, 471,270 (silk, metal manufacture); Toulouse, 268,863 (tobacco; commercial center); Bordeaux, 257,946 (wine; seaport); Nice, 244,360 (resort center); Nantes, 222,790 (manufacturing).
Monetary unit: Franc.
Religion (est.): Roman Catholic, 97.5%; Protestant and others, 2.5%.

chief executive and is largely responsible to the President instead of an unwieldy coalition of deputies in Parliament.

Creation of a strong executive has not in itself, solved all of France's problems. A number of fiscal reforms have been initiated, but the problem of the drain on the French economy by the war in Algeria remains. There is still some labor unrest because of the high prices resulting from inflation. But the aircraft and metallurgical industries have given exports a boost and the franc has been stabilized and revalued—one "new" franc equaling 100 former francs. France is also a key member of the European Common Market, the Coal and Steel Community and the European Atomic Energy Community.

STATUS IN THE WORLD TODAY

Under the energetic leadership of Gen. Charles de Gaulle, the newly established Fifth Republic of France appears to be making progress in restoring financial and political stability to that nation and making her a more effective partner in the association of free nations. After having lost the cream of their youth in two World Wars, the French, to whom the Free World owes much of its way of life, are in no mood to accept the status of a second-class power. Under the leadership of de Gaulle they hope to recover that prestige that marked them as one of the great powers of the world.

The deepening French problem until May, 1958—political chaos, financial instability, and labor strife—caused great concern among the nations of the Free World. France is indispensable to the Allies' position in Western Europe. Many constructive enterprises set into motion by the West were blocked by the continuing French crises. No single group could ever attain enough power to implement a consistent long-term policy. The inauguration of the Fifth Republic changed all that. From a parliamentary democracy France became a presidential one with a strong executive and balanced powers. The Premier is now, in effect, the President's

The French desire to be considered a first-rate power has not been without its effects on military matters within NATO. Since the United States retains control over the atomic warheads of weapons sent abroad, it has had to move some of its planes to Britain and West Germany because the de Gaulle regime felt it was not compatible with French sovereignty not to have a voice in atomic matters. Then, too, partly in view of the war in Algeria, the units of the French fleet in the Mediterranean have been withdrawn from overall NATO command. Gen. de Gaulle, before assuming power, criticized both American leadership of NATO and what he asserted was the French government's slavish acceptance of it. But despite the present differences, which are relatively minor, the Allies feel that finally a stronger France will also mean a stronger NATO.

In September, 1959, Gen. de Gaulle announced that 4 years after the end of hostilities in Algeria, an election would be held to determine the area's future.

HISTORY AND GOVERNMENT. France, the Gaul of ancient times, began its history as France, a separate nation, with the Treaty of Verdun (843), by which the territories roughly comprising what are today France, Germany, and Italy were

France and the French Union

Political subdivision	Area (sq. mi.)	Population	Political subdivision	Area (sq. mi.)	Population
France	212,736	44,500,000 ⁸	Sénégal	80,617	2,224,000 ⁹
Africa			Madagascar and dependencies	230,165	4,918,000 ⁷
Algeria	846,124	10,143,000 ⁷	Réunion	969	274,370 ⁴
Cameroun	166,793	3,125,000 ¹	Togo	21,135	1,093,000 ⁷
Comoro archipelago	832	184,000 ⁷	Western Hemisphere		
French Equatorial			French Guiana	35,135	27,863 ⁴
Africa	969,111	4,891,000 ⁷	Guadeloupe	687	229,120 ⁴
Chad	495,752	2,451,000 ⁵	Martinique	425	239,130 ⁴
Gabon	103,089	392,000 ⁵	St. Pierre and Miquelon	93	4,606 ¹
Middle Congo	132,046	706,000 ⁵	Asia		
Ubangi-Shari	238,224	1,104,000 ⁵	Laos	91,500	1,425,000 ⁵
French Somaliland	8,494	67,000 ⁷	Oceania		
French West Africa	1,831,079	16,243,000 ⁶	French Pacific Settle- ments	1,545	63,000 ³
Dahomey	43,784	1,615,000 ⁶	New Caledonia and dependencies	7,654	63,000 ³
French Guinea*	106,216	2,261,000 ⁵	New Hebrides	5,700	53,000 ⁵
French Sudan	460,540	3,643,000 ⁶			
Haute Volta	105,946	3,137,000 ⁵			
Ivory Coast	123,282	2,485,000 ⁶			
Mauritania	416,061	605,000 ⁸			
Niger	494,633	2,336,000 ⁶			

(Note: Each population figure is followed by a superior number denoting the year of estimate or census: ¹ for 1958, ² for 1957, ³ for 1956, ⁴ for 1955, ⁵ for 1954, etc.
* Voted in Sept. 1958 not to remain in the French Union.

divided among Charlemagne's three grandsons. Caesar conquered part of Gaul in 57-52 B.C. and the Franks overran it in the fifth century A.D. The first of the Capetians, Hugh Capet (987-996) ruled over the principality of the Île-de-France, from which the Capetian domain was gradually expanded by conquest, purchase, marriage, inheritance, and forfeiture. The task of breaking English power in France was begun by Philip II Augustus (1180-1223) and continued in a long series of conflicts called the Hundred Years' War, 1338-1453. Beginning as a feudal conflict between French kings and the English Angevin house, this strife ended as a national war, with France emerging as a modern centralized national state. The English had won at Crécy in 1346 and at Agincourt in 1415 but were defeated at Orléans in 1429 by the French under Joan of Arc.

Relics of half-overthrown medievalism still survived in eighteenth-century France. Louis XVI (1774-1792) was unable to solve the accumulated crises. The Old Regime, with its autocratic monarch and its privileged nobility, was an outworn society ready to collapse under the impact of revolution. The French Revolution beginning in 1789 resulted from lack of intelligent government, lack of political liberty, an arbitrary system of taxation, survival of medieval abuses, economic evils, and the ideas of the intellectual reformers of the Age of Reason. It was a dramatic, bloody affair which kept France in turmoil for years.

Napoleon Bonaparte gave France a short

period of glory and then the humiliation of a stunning defeat. Napoleon hardened the changes that had been brought about by the French Revolution and made some of them permanent before the forces of reaction set in; he spread revolutionary reforms to conquered German and Italian territories; nourished the growth of nationalism; and consolidated the Industrial Revolution in France.

The Congress of Vienna (1815), called to remake the map of Europe on the basis of "legitimacy" and "compensations" after the downfall of Napoleon, restored the Bourbons to the throne. Louis Philippe abdicated and fled to England at the start of the Revolution of 1848, and the Second French Republic was established.

Taking advantage of a factional split, Prince Louis Napoleon assumed control of France in the coup d'état of 1851. A year later, on December 2, 1852, he proclaimed himself Napoleon III, Emperor of the French. He founded his Second French Empire on nationalism, militarism, and imperialism. His opposition to the national unification of Germany collided head-on with Bismarck's plans. The result was the Franco-Prussian War (1870-71). Napoleon III was captured at Sedan, and the Second Empire collapsed in ruins.

Reconstruction after the Franco-Prussian War was rapid, with reorganization of the army and economic and social reforms, and a new France emerged from World War I as the dominant power on the Continent. But four years of hostile occupation and the fires of war had reduced the

once-thriving area of Northeast France to ruins. The Third French Republic was plagued by political instability and economic chaos.

From 1919 on, the aim of French foreign policy was to maintain German weakness by a system of military alliances isolating Germany. The rise of Hitler and the establishment of the Nazi dictatorship meant the failure of France's foreign policy. On June 5, 1940, the mechanized Nazi troops attacked the French. As the German armies drew close to Paris, Italy declared war on France and England. The Germans marched into undefended Paris, and three days later Marshal Pétain, head of the French government then at Bordeaux, asked for an armistice. It was granted on June 22, 1940, and the French armies surrendered. Flooded with Nazi agents, France was betrayed as well as defeated. France was split into occupied and unoccupied zones. The unoccupied portion, Vichy France, became a totalitarian state with Marshal Pétain as Chief of State.

France was liberated by the Allied armies in September, 1944. The French Committee of National Liberation, formed in Algiers in 1943, established a provisional government with General de Gaulle as President of Council. With the adoption of a new constitution on December 24, 1946, the Fourth French Republic came into existence.

The Fifth Republic was inaugurated on October 5, 1958, after approval by a popular referendum on September 28, 1958. The President of the Republic is elected for 7 years by an enlarged electoral college made up of members of Parliament, departmental and municipal counselors, representatives of the assemblies of Overseas Territories, and additional electors chosen by the mayors and municipal counselors. The President appoints the Premier and the Cabinet is responsible to Parliament. The President has the right to dissolve the National Assembly or to ask Parliament for reconsideration of a law. The Parliament consists of two Houses: the National Assembly and the Senate. The 546 members of the National Assembly of the Fifth Republic were elected in November, 1958, by direct suffrage. The Senate was elected by indirect suffrage in April and May, 1959, and includes representation from Metropolitan France and from Overseas Departments and Territories.

Religion. The predominant faith is Roman Catholicism, but Church and State were separated in 1905. Diplomatic relations with the Vatican were resumed in 1921, and lesser church property was returned to diocesan associations in 1924.

Population. The people are not homo-

geneous, varying from section to section. During the inter-bellum period, the population remained almost static, with an increase of only 72,133 from 1931 to 1936 and a decrease of 3.3 per cent from 1936 to 1946. The period between 1946 and 1954 showed an increase of 5.6 per cent. France normally is almost self-sufficient in basic foodstuffs and leads the world in wine production.

ECONOMIC CONDITIONS. Silk culture once thrived in the lower Rhône valley, but production fell sharply between wars. Milk, butter, and cheese are important as exports. Livestock in Oct., 1957, included 17,792,000 cattle, 8,575,000 sheep, and 7,728,000 hogs.

Industry. Principal industrial areas are Paris, Artols, Lower Seine and Lyon; the textile industry is concentrated in the north. Leading manufactures are iron, steel, chemicals, textiles, automobiles, machinery, and beet sugar.

Principal suppliers in 1957 were the U. S. and Canada (14%), Western Germany (10%), Algeria (7%), Belgium (5%), and Britain (4%); leading customers, Algeria (13%), Western Germany (10%), Belgium (8%), Switzerland (7%), and Britain (5%). Leading exports were metals and manufactures, textiles, and agricultural and food products.

NATURAL FEATURES AND RESOURCES. France is second in size to Russia among Europe's nations. In the Alps near the Italian and Swiss borders is France's highest point—Mont Blanc, 15,781 feet. The forest-covered Vosges Mountains are in the northeast and the Pyrenees are along the Spanish border. Except for extreme northern France, which is part of the Flanders plain, the country may be described as four river basins and a plateau. Three of the streams flow west—the Seine into the English Channel, the Loire into the Atlantic, and the Garonne into the Bay of Biscay. The Rhône flows south into the Mediterranean. For about a hundred miles, the Rhine is France's eastern border. West of the Rhône and northeast of the Garonne lies the Central Plateau, covering about 15 per cent of France's area, and rising to a maximum elevation of 6,188 feet. In the Mediterranean, about 115 miles east-southeast of Nice, is Corsica, the island of Napoleon's birth, with an area of 3,367 square miles.

Minerals. French coalfields, most extensive in the northeast, ordinarily supply about 70 per cent of domestic needs. Lorraine, Anjou and Normandy have valuable iron ore deposits. Provence has bauxite. Alsace has potash and oil. Limousin has kaolin, zinc, lead and tar.

Forests and Fisheries. France produces forest products, including resin, turpentine,

timber, and nuts. The annual fish catch is among the largest in Europe.

Andorra

This 191-square mile autonomous and semi-independent state on the Franco-Spanish border has been under the joint suzerainty of the French State and the Spanish bishops of Urgel since 1278. It is a cluster of mountain valleys inhabited by about 6,500 hardy and traditionally independent people whose principal pursuit is the tending of flocks. Catalán is the language spoken. A Council General of 24 members, elected for four years by the heads of families, choose the First Syndic, the supreme executive authority.

THE FRENCH UNION AFRICA

Algeria (Part of Metropolitan France) (L'Algérie)

Delegate General: Paul Delouvrier.

Principal cities (census 1954): Algiers, 355,040 (capital); Oran, 291,812 (seaport); Constantine, 143,334 (trading center); Bône, 112,010 (seaport, phosphates).

Monetary unit: French franc.

Languages: Arabic, French.

Religions: Moslem (natives), Roman Catholic, Jewish.

STATUS IN THE WORLD TODAY

The fight by Algerian nationalists for independence has had widespread political, diplomatic, military, and financial repercussions in France. Politically, it brought General de Gaulle to power when the Army and extremist French colonists virtually seceded, set up a "Committee of Public Safety," and demanded that de Gaulle be given power. Diplomatically, it has had serious effects on French relations with the other Moslem nations along the northern coast of the Mediterranean, with the French trying to stop the flow of arms from Arab sympathizers in these states. Militarily, it has forced France to detach troops from their NATO forces and sent them to Algeria and tied down nearly half a million troops. Financially, the campaign has cost a great deal.

Although Algeria is considered part of metropolitan France, the natives, who comprise 86% of the population, never had all the same rights as Frenchmen, and when Morocco and Tunisia became independent, nationalists demanded the same status. When it was refused, fighting started, mostly of the guerrilla type. A

number of moves to give the natives more political representation failed to satisfy the extremists. In 1947 Moslems were given the right to send deputies to the National Assembly in Paris. This was followed in 1958 by a bill establishing regional autonomy along geographic and ethnic lines with voting equality between Moslems and non-Moslems. The fighting continues, with nationalists demanding complete independence and the French colonists equally violently opposed to too many concessions to the Moslems. The most recent development has been a Soviet hint that it might send "volunteers" to help the nationalists in their struggle.

HISTORY AND GOVERNMENT. As ancient Numidia, Algeria became a Roman colony at the close of the Punic Wars (145 B.C.). Conquered by the Vandals about 440 A.D., it descended from a high state of prosperity and civilization to virtual barbarism, from which it partially recovered after invasion by the Moslems about 650 A.D. In 1492 the Moors and Jews, who had been expelled from Spain, settled in Algeria. Falling under Turkish control in 1518, Algiers became for three centuries the headquarters of the Barbary pirates who preyed on Mediterranean commerce. The French took Algiers in 1830. While Algeria is organically linked with France, its constitutional status is in a process of revision. In the meantime, the French Delegate General has full civil and military powers and is directly responsible to the French Premier.

ECONOMIC CONDITIONS. Approximately 86% of the population is native, 12% French, and 2% other European. The native population is Berber, with Arab admixture physically assimilated.

The area under cultivation is about 15,000,000 acres, more than 30 per cent of which is owned by European farmers, chiefly in the fertile coastlands. The principal crops are wheat, barley and oats. Algeria is a leading wine producer, with almost 7 per cent of the cultivated area devoted to vines. Tobacco, corn, vegetables, flax, silk, figs, and dates are also produced. Much of the area is more adapted to grazing than to agriculture. In 1954 there were 6,008,000 sheep, 893,000 cattle; (1953) 3,231,000 goats and 183,000 camels.

European industries include those dependent on crops, such as distilling and oil and flour milling, as well as the making of leather, tobacco and matches. There are also small native industries, particularly the traditional carpet weaving.

In 1956 chief exports were wine (38%), iron ore (6%), and citrus fruits (6%); chief imports, petroleum and products

(6%), machinery and apparatus (6%), and motor vehicles (5%). France took 76% of the exports and supplied 80% of the imports.

NATURAL FEATURES AND RESOURCES. Low plains cover small areas near the coast, but 68 per cent of Algeria is a plateau between 2,625 and 5,250 feet above sea level. The region between the Sahara and the Mediterranean reaches a high point of 7,641 feet.

Algeria is a leading producer of phosphates. Iron ore (55% metal content) is found near the Tunisian frontier and on the Oran coast. Zinc, lead, and salt are also important minerals; and small amounts of oil and coal are produced.

CAMEROUN (FRENCH CAMEROONS)—Status: U. N. trust territory.

Capital: Yaoundé (population 54,000).

Premier: Ahamadou Ahidjo.

Foreign trade (1957): exports, 15,000,000,000 fr. C.F.A.*; imports, 18,149,000,000 fr. C.F.A. Chief exports: cacao (35%), coffee, bananas, timber, cotton.

Agricultural products: cacao (exports 1956: 30,893 metric tons), coffee, bananas, cotton, rubber, millet, sweet potatoes.

Minerals: tin, gold, rutile.

Forest product: timber.

* Colonies Françaises d'Afrique, equal to 2 metropolitan francs.

In 1884 the Cameroons became a German colony (Kamerun), and after the conclusion of World War I the region was divided as a League mandate between Britain and France, four-fifths of the area going to France. Placed under French trusteeship by the United Nations in 1946, the area has political and financial autonomy under a French High Commissioner, who under the 1957 self-government statute is assisted by a cabinet headed by the premier and responsible to the popularly elected territorial assembly. The chief port is Douala; the administrative center, Yaoundé.

In August, 1958, France declared that it is granting the French Cameroons complete independence as of January 1, 1960, and in February, 1959, the U.N. Trusteeship Council adopted a resolution recommending that the U.N. end its trusteeship over the French Cameroons when the territory becomes independent.

FRENCH EQUATORIAL AFRICA—Status: Group of overseas territories.

High commissioner: Paul Chauvet.

Capital: Brazzaville (pop. 1955: 81,420).

Foreign trade (1957): exports, 15,000,000,000 fr. C.F.A. (64% to France); imports, 26,180,000,000 fr. C.F.A. (57% from France). Chief exports: timber (36%), cotton (33%), coffee, diamonds, peanuts.

Agricultural products: cotton (1956 exports: 37,472 metric tons), coffee, peanuts, cacao, palm kernels and oil.

Minerals: gold, diamonds, lead, iron ore. Forest products: timber, rubber, copal gum, wax.

This area now consists of four autonomous Republics within the French Community: Gabon, Congo, Chad, and the Central African Republic (Ubangi-Shari).

An early slaving center, it was first settled by France in 1839; French hegemony was subsequently extended by exploration and conquest of the native tribes. The territories declared for Free France following the armistice of June, 1940, and Brazzaville became capital of de Gaulle's Free French movement.

The high commissioner co-ordinates the administration of the area with the aid of an elected Grand Council. In January, 1959, the four autonomous republics signed an agreement establishing a customs union and a common administration of transport, posts, and telegraphs. There were, in 1951, 23,403 Europeans; most of the Africans are Negroes. There are Arab and Fulani settlements in the Chad region, and several Moslem sultanates. Natural resources, both forest and mineral, are vast but relatively unexploited. Once economically dependent on forest products, the country developed after World War II as a producer of cotton, diamonds and gold. The area is capable of exporting large quantities of hard okoumé wood.

FRENCH SOMALILAND—Status: Overseas territory.

Capital: Djibouti (population 32,000).

Governor: René Petitbon.

Foreign trade (1955): domestic exports, 253,000,000 Djibouti fr.*; ship stores, 2,727,000,000 Djibouti fr.; imports (excluding ship stores), 2,324,000,000 Djibouti fr. Chief exports: salt, hides.

Mineral: salt.

* 1 Djibouti franc = 1.64 metropolitan francs.

French Somaliland, at the southern entrance to the Red Sea, was acquired by France between 1883 and 1887 by treaties with the Somali sultans, although posts on the coast had been acquired in 1856. This small, largely arid and sparsely populated region is important chiefly because of the port of Djibouti, the main artery of Ethiopia's trade via the Djibouti-Addis Ababa railway. The area is administered by a Governor, responsible to the French government and assisted by a representative council. In October, 1958, French Somaliland voted in favor of the new Constitution establishing the French Fifth Republic, and in December, 1958, the 32-member Territorial Assembly of French Somaliland voted to remain an Overseas Territory within the French community. In 1955 there were an estimated 3,132 Europeans, 28,000 Somalis, 25,000 Danakils, and 6,000 Arabs.

French West Africa (Group of Overseas Territories) (L'Afrique Occidentale Française)

High Commissioner: Gaston Custin.

Principal cities (est. 1956): Dakar, 230,-887 (capital, chief port); Abidjan, 127,585 (export center); Bamako, 68,917 (Niger river port).

Monetary unit: Franc C.F.A. (Colonies Françaises d'Afrique, equal to 2 metropolitan francs).

Languages: French, native tongues.

Religions: Animist (53.4%); Moslem (44.2%); Christian (2.4%).

STATUS IN THE WORLD TODAY

In September, 1958, French Guinea voted not to remain in the French Union and in January, 1959, four of the autonomous republics (Dahomey, Sénégal, Sudan, and Haute Volta) announced their plan to form the Federation of Mali within the French Community and adopted a federal draft constitution and Dakar as the federal capital. By Sept., 1959, the federation comprised only Sénégal and Sudan. In June, 1959, the seven autonomous republics of French West Africa agreed to form a customs union.

HISTORY AND GOVERNMENT. The St. Louis Colony, founded in 1626 at the mouth of the Sénégal River, was probably the first permanent white settlement in French West Africa in which the French established themselves, largely for the purpose of pursuing the slave trade. After 1876 the coast settlements were extended steadily into the interior through a series of missionary and economic campaigns. In 1895 the colony of French West Africa was formed under one Governor General by the unification of its various components.

Under 1957 legislation the high commissioner, with the aid of an indirectly elected Grand Council, co-ordinates the administration of the eight constituent territories—Sénégal, French Guinea, Ivory Coast, Dahomey, Haute Volta (re-established in 1947), French Sudan, Mauritania and Niger.

ECONOMIC CONDITIONS. Agriculture has expanded rapidly in recent years. Millet, rice, and maize are the principal food crops, and vegetable oils are a leading commercial product. Peanuts, the chief export crop (1955-56: 938,000 metric tons) are cultivated in Sénégal, and palm kernels and oil are produced in Dahomey and the Ivory Coast. Other products are coffee, cotton, cacao, and bananas. Stock raising is important in French Sudan and Mauritania, relatively dry districts in the northern part of the area. Manufacturing is

undeveloped except for small native industries.

Leading exports in 1956 were coffee (28%), peanuts (20%), peanut oil (14%), and cacao (14%). France took 66% of the exports and supplied 65% of the imports.

NATURAL FEATURES AND RESOURCES. The area, comprising a sixth of Africa, is half as big as Europe; it is generally a plateau broken by two mountain ranges. The Futa Jallon, from 2,300 to 4,900 feet in elevation, parallels the coast for about 430 miles, and Mount Nimba, on the Liberian border, rises 5,250 feet. There are also mountainous regions in the Sahara districts to the north. The Niger, 2,600 miles long, is the principal river.

Important minerals include diamonds, gold, iron ore and bauxite; production of gold has dropped sharply in recent years but large-scale exploitation of iron ore and bauxite deposits is in progress. Iron ore production totaled 847,000 metric tons in 1956; bauxite, 452,000 tons. Timber and precious woods are important, especially in the Ivory Coast.

MADAGASCAR AND DEPENDENCIES— Status: Autonomous republic.

Capital: Tananarive (Antananarivo) (census 1956: 193,476).

President: Philibert Tsiranana.

Foreign trade (1957): exports, 18,772,-000,000 fr. C.F.A. (59.3% to France); imports, 26,157,000,000 fr. C.F.A. (73% from France). Chief exports: coffee (43%), rice (8%), tobacco (6%).

Agricultural products (exports 1956): coffee (52,486 metric tons), rice (36,172 tons), tobacco (3,783 tons), cloves, sugar, vanilla, manioc, bananas, maize, coconuts.

Minerals: graphite (exports 1956: 15,401 metric tons), mica, phosphates, gold.

Forest products: gum, medicinal plants, rubber, tannins, dyewoods.

Madagascar is an autonomous republic within the French Community and consists of 6 provinces: Tananarive, Diego-Suariz, Majunga, Fianarantsoa, Tamatave, and Tulear. Madagascar, lying off the southeast coast of Africa, is the fourth largest island in the world, with a length of 995 miles and an average width of 250 miles. It remained independent under native rulers until 1885, when it came under French protection. French troops conquered the island in 1895 and it became a French colony the following year. The last native ruler, Queen Rânavalona III, was exiled. Serious native nationalist outbreaks occurred in 1947.

In September, 1958, Madagascar voted in favor of the new Constitution of the Fifth French Republic and in October, 1958, the French High Commissioner in Madagascar proclaimed as lapsed the law of August 6, 1896, under which Madagascar had been

made a French Colony. In May, 1959, Tsiranana was elected the first President of the new Malgache Republic.

The chief occupations are cattle raising (1955: 6,100,000 cattle) and agriculture; there are several food-processing and textile plants. The chief port is Tamatave on the east coast; the capital, Tananarive, is located on the central plateau.

Dependencies include the islands of Europa, Juan da Nova, Bassas da India, Glorieuses and various scattered sub-antarctic islands known as Iles Australes. Under a 1955 law, they and French Antarctica were to be a separate overseas territory.

The Comoro Islands (832 sq. mi.), formerly a dependency, became an autonomous overseas territory effective Jan. 1, 1947, and are represented in the French parliament, although still partly under the authority of French officials in Madagascar. They are located in the Indian ocean at the north entrance of the Mozambique channel, about 300 mi. north of Madagascar. The Comoros consist of four main islands and several islets. The French Administrator is assisted by a Privy Council and an elected General Council. The population is largely Moslem. Exports include essential oils, sisal, vanilla, copra, cacao and cloves.

RÉUNION (Bourbon)—Status: Overseas Department.

Capital: St. Denis (population 26,310).

Prefect: Perreau Pradier.

Foreign trade (1957): exports, 6,854,000,-000 fr. C.F.A. (87% to France); imports, 9,000,000,000 fr. C.F.A. (68% from France). Chief exports: sugar (83%), essential oils.

Agricultural products: sugar (exports 1956: 185,086 metric tons), vanilla, coffee, maize.

Discovered by Portuguese navigators in the 16th century, the island, then uninhabited, was taken as a French possession in 1638. It is located about 450 miles east of Madagascar, in the Indian Ocean. In September, 1958, Réunion approved the Constitution of the Fifth French Republic and became an Overseas Department within the new French Community.

There is no indigenous population. About three-quarters of the inhabitants are of European origin; the remainder are Creoles, mulattoes, Negroes, Indians and other Asiatics. Tropical cyclones of hurricane variety are frequent during the change of seasons. Occasionally a *raz de marée* (tidal wave) does great damage.

TOGO—Status: Autonomous republic.

Capital: Lomé (population 39,900).

High commissioner: Jean Bérard.

Premier: Sylvanus Olympio.

Foreign trade (1956): exports, 2,336,000,-

000 fr. C.F.A. (77% to France); imports, 2,673,000,000 fr. C.F.A. (44% from France). Chief exports: coffee (35%), cacao (21%), palm kernels and oil, cotton, copra.

Agricultural products (exports 1956): coffee (6,406 metric tons), cacao (4,555 tons), palm kernels and oil, cotton, copra.

Mineral: iron ore.

Forest products: dyewoods, oil palms.

Togo, a part of the former Slave Coast, lies between the British Gold Coast colony and French West Africa. Established as a German colony in 1884, the area was divided as a League mandate by France and Britain at the end of World War I, with France obtaining two-thirds of the total area. It was placed under U. N. trusteeship in 1946.

A referendum organized by the French Government in October, 1956, proved in favor of ending the U.N. trusteeship over the republic. France promised complete independence in 1960 and the U.N. Trusteeship Council agreed in November, 1958, to end its trusteeship over French Togoland upon the attainment of independence by that territory. French Togoland now has a 46-member Legislative Assembly elected by universal suffrage and elects the Premier, who appoints a Cabinet of 8 ministers.

The southern half is populated principally by the Ewe and Mina tribes; in the north the population is descended largely from Hamitic tribes. There were 1,300 Europeans in 1954. Agriculture and grazing are the chief industries.

The coastline, only 32 miles long, is low, sandy and without harbors. The Togo Hills traverse the central section.

Tunisia. See Tunisia

WESTERN HEMISPHERE

FRENCH GUIANA (including ININI)—Status: Overseas Department.

Capital: Cayenne (population 13,362).

Prefect: Pierre Maloy.

Foreign trade (1957): exports, 324,000,-000 fr. (44% to France); imports, 3,049,-000,000 fr. (69% from France). Chief exports: rum (27%), timber, gold.

Agricultural products: bananas, cacao, corn, manioc, rice, sugar cane.

Mineral: gold (exports 1956: 1,075 troy oz.).

French Guiana, lying north of Brazil and east of Surinam (Dutch Guiana) on the northeast coast of South America, was first settled in 1626. Penal settlements, embracing the area around the mouth of the Maroni River and the Iles du Salut (including Devil's Island), were founded in 1852; they were replaced by refugee camps in the 1940's.

During World War II, French Guiana at first adhered to the Vichy government, but the Free French took over in March, 1943. French Guiana accepted in September, 1958, the new Constitution of the French Fifth Republic and became an Overseas Department within the new French Community.

GUADELOUPE—Status: Département of Metropolitan France.

Capital: Basse-Terre (population 11,837).

Prefect: Guy Malines.

Foreign trade (1957): exports, 12,300,-000,000 fr. (92% to France); imports, 16,800,000,000 fr. (75% from France). Chief exports: sugar (61%), bananas, rum.

Agricultural products: sugar (exports 1956: 123,287 metric tons), bananas, coffee, cacao, manioc, vanilla.

Manufactures: rum, sugar.

Guadeloupe, lying in the West Indies, about 300 miles southeast of Puerto Rico, was discovered by Columbus in 1493. French colonization began in 1635. The largest city and chief port is Pointe-à-Pitre (population 30,465). About half the cultivated area is devoted to sugar cane. The manufacturing of rum and spirits is the principal industry. In September, 1958, Guadeloupe voted in favor of the new Constitution of the French Fifth Republic and became an Overseas Department within the new French Community.

MARTINIQUE—Status: Overseas Department.

Capital: Fort-de-France (population 40,-380).

Prefect: Gaston Villéger.

Foreign trade (1957): exports, 12,900,000,-000 fr. (96% to France); imports, 17,400,-000,000 fr. (75% from France). Chief exports: sugar (42%), bananas, rum.

Agricultural products: sugar (exports 1956: 72,138 metric tons), bananas, pineapples, cacao, coffee.

Manufactures: rum, sugar.

Martinique, lying in the Lesser Antilles about 300 miles northeast of Venezuela, was probably discovered by Columbus in 1502 and was taken for France in 1635. Following the Franco-German armistice of 1940 it had a semi-autonomous status under the High Commissioner, Admiral Georges Robert, until 1943, when he relinquished his authority to the Free French. The area, administered by a Prefect assisted by an elected council, is represented in the French legislature. In September, 1958, Martinique voted in favor of the new Constitution of the French Fifth Republic and became an Overseas Department within the new French Community. The population is mainly Negro and mulatto. Most of the arable land is devoted to sugar cultivation. Fort-de-France, the capital and chief commercial center, has an excellent harbor.

ST. PIERRE AND MIQUELON—Status: Overseas territory.

Capital: St. Pierre (population 4,295).

Administrator: Pierre Sicaud.

Foreign trade (1957): exports, 327,000,-000 fr. C.F.A. (29% to France); imports, 661,000,000 fr. C.F.A. (54% from Canada). Chief export: fish and products.

The sole remnant of the French colonial empire in North America, these islands were first occupied by the French in 1660. Their only importance arises from proximity to the Grand Banks, located ten miles south of Newfoundland, making them the center of the French Atlantic cod fisheries. In September, 1958, St. Pierre and Miquelon voted in favor of the new Constitution of the French Fifth Republic and became an Overseas Territory within the new French Community.

ASIA

Indo-China. (See articles on Vietnam, Cambodia and Laos).

OCEANIA

FRENCH PACIFIC SETTLEMENTS—Status: Overseas territory.

Governor: Jean Toby.

Capital: Papeete, on Tahiti (population 1956: 17,247).

Foreign trade (1956): exports, 659,000,-000 fr. C.F.P.* (52% to France); imports, 676,000,000 fr. C.F.P. (30% from the U. S., 30% from France). Chief exports: phosphate (33%), copra, vanilla.

Agricultural products: copra (exports 1956: 20,000 metric tons), sugar, vanilla, tobacco.

Mineral: phosphate (1956 exports: 264,-926 metric tons).

* Colonies Françaises du Pacifique, equal to 5½ metropolitan France.

The terms French Pacific Settlements and French Polynesia are applied to the scattered French possessions in the eastern Pacific—Mangareva (Gambier), Makatea, Marquesas Islands, Rapa, Rurutu, Rimatara, Society Islands, Tuamotu Archipelago, Tubuai, and Raiavavai—which were organized into a single colony in 1903. The appointed Governor is assisted by a Privy Council and a popularly elected Representative Assembly. The principal and most populous island—Tahiti, in the Society group (pop. 1951: 30,500)—was claimed as French in 1768. In September, 1958, French Polynesia voted in favor of the new Constitution of the French Fifth Republic and became an Overseas Territory within the new French Community. The natives are mostly Polynesians.

NEW CALEDONIA AND DEPENDENCIES—Status: Overseas territory.

Capital: Nouméa (population 22,000).

Governor: Aimé Grimald (also French High Commissioner in the Pacific).

Foreign trade (1957): exports, 3,196,000,-000 fr. C.F.P. (62% to France); imports, 3,046,000,000 fr. C.F.P. (50% from France). Chief exports: nickel (87%), chromite, coffee.

Agricultural products: coffee, copra, corn, cotton, manioc, rice, tobacco.

Minerals (1956): nickel (6,920 metric tons, matte), chromite (49,190 tons), iron ore.

Sea product: mother-of-pearl.

New Caledonia (6,533 sq. mi.), lying about 1,070 miles northeast of Sydney, Australia, was discovered by Captain James Cook in 1774 and annexed by France in 1853. The government, in the hands of an appointed Governor and an elective Council, also administers the Isle of Pines, the Wallis Archipelago, the Loyalty Islands, the Chesterfield Islands, Walpole, the Huon Islands, Futuna and Alofi, with a total area of 1,121 square miles. The area—taken over in the summer of 1940 by the Free French after a bloodless revolution—is one of the richest of the Pacific islands in mineral resources, particularly nickel and chrome ore. New Caledonia chose in 1958

to remain an Overseas Territory within the new French Community. The natives are Melanesians; about one-third of the population is white and one-fifth Indo-Chinese and Javanese. A French penal colony was established in the 19th century.

NEW HEBRIDES—Status: Anglo-French condominium.

Capital: Vila (population 2,000).

Foreign trade (1956): exports, 268,117,-000 fr. C.F.P.; imports, 195,332,000 fr. C.F.P. Chief exports: copra (80%), cacao, coffee.

Agricultural products: coconuts, cacao, coffee.

Sea products: trochus and burghaus shell.

The New Hebrides, under joint Anglo-French administration since February, 1906, lie northeast of New Caledonia. The islands, about 40 in number, joined the Free French movement after a plebiscite in July 1940. Most of the natives are Melanesians of mixed blood; there were 350 British and 1,300 French in 1952. The largest island is Espiritu Santo (875 sq. mi.). The French and British high commissioners in the Pacific are represented by resident commissioners.

GERMANY

HISTORY. In Caesar's time, the territory that is now Germany was inhabited by barbarous tribes that came originally perhaps from Central Asia. One of these Germanic tribes, the Franks, attained supremacy in western Europe under Charlemagne, who was crowned Holy Roman Emperor in A.D. 800. By the Treaty of Verdun (843), Charlemagne's lands east of the Rhine were ceded to the German Prince Louis. Additional territory acquired by the Treaty of Mersen (870) gave Germany approximately the area she maintained throughout the Middle Ages. For several centuries after Otto the Great was crowned King in 936, the German rulers were also usually heads of the Holy Roman Empire.

Relations between State and Church were changed by the Reformation, which began with Martin Luther's 95 theses, and came to a head in 1547, when Charles V scattered the forces of the Protestant League at Mühlberg. Freedom of worship was obtained by the Peace of Augsburg (1555), but a Counter Reformation took place later, and a dispute over the succession to the Bohemian throne brought on the Thirty Years' War (1618-48) which devastated Germany and left the empire divided into hundreds of small principalities virtually independent of the Emperor. Meanwhile, Prussia was developing into a province of considerable strength.

Frederick the Great (1740-86) reorganized the Prussian army and defeated Maria Theresa of Austria in a struggle over Silesia. The conflict with revolutionary France hastened the disintegration of the empire, and in 1806 Francis II of Austria laid down the Imperial German crown. After the defeat of Napoleon at Waterloo (1815), the struggle between Austria and Prussia for supremacy in Germany continued, reaching its climax in the defeat of Austria in the Seven Weeks' War (1866) and the formation of the Prussian-dominated North German Confederation (1867).

The architect of German unity was Otto von Bismarck (1815-1898), a conservative, monarchist, and militaristic Prussian Junker who had no use for "empty phrase-making and constitutions." From 1862 until his retirement in 1890 he dominated not only the German but also the entire European scene. He unified all Germany in a series of three wars, against Denmark (1864), Austria (1866), and France (1870-1871). Historians differ on the responsibility for these wars, but many believe they were instigated and promoted by Bismarck in his zeal to obtain national unity through "blood-and-iron."

On January 18, 1871, King William I of Prussia was proclaimed William I, German Emperor, at the Hall of Mirrors, Versailles. The North German Confedera-

tion, created in 1867, was abolished, and the new Second German Reich, consisting of both North and South German states, was born. As King of Prussia, the German Emperor exercised what amounted to dictatorial control over all Germany. With a powerful army, an efficient bureaucracy, and a loyal bourgeoisie, Chancellor Bismarck consolidated a powerful centralized state under Prussian domination.

William II (1888-1918) dismissed Bismarck in 1890 and embarked upon a "New Course" stressing an intensified colonialism and a powerful navy. His chaotic foreign policy gradually culminated in the diplomatic isolation of Germany and the nearly fatal outcome of World War I.

The Second German Empire collapsed following the defeat of the German armies in 1918, the naval mutiny at Kiel, and the flight of William II to Holland. The Social Democrats, led by Ebert and Scheidemann, crushed the Communists and established a moderate republic. The Weimar Constitution of 1919 provided for a President to be elected for seven years by direct universal suffrage; a bicameral legislature, consisting of the *Reichsrat*, representing the states, and the *Reichstag*, representing the people. It contained a model Bill of Rights. Unfortunately, the value of this Constitution was weakened by including a provision (Article 48) enabling the President to rule by decree.

The Weimar Republic was neither loved, wanted, nor understood by the mass of Germans. They regarded it as a child of defeat, imposed upon a Germany whose legitimate aspirations to world leadership had been thwarted by a world conspiracy. Schooled in autocracy, obedience, and leadership, the people apparently were not ready for an advanced democratic form of government. Added to this were a crippling currency debacle, a tremendous burden of reparations, and acute economic distress.

Capital of Germany's misery was made by Adolf Hitler (1889-1945), a former Austrian war veteran, a fanatical hypomaniac, a remarkable orator, and a passionate nationalist. He aroused all the elements of discontent by promising a Greater Germany, the abrogation of the Treaty of Versailles, the restoration of Germany's lost colonies, and the destruction of the Jews. When the Social Democrats and the Communists refused to combine against the Nazi threat, they sealed the doom of the Weimar Republic. President von Hindenburg appointed Hitler as Chancellor on January 30, 1933.

Adolf Hitler. With the death of President von Hindenburg in 1934, Hitler became complete master of Germany. He repudiated the Treaty of Versailles and began full-scale rearmament. In 1935 he with-

drew from the League of Nations, and in 1936 he reoccupied the Rhineland and signed the anti-Comintern pact with Japan, at the same time strengthening relations with Italy. Austria was annexed in March, 1938. By the Munich agreement (Sept., 1938) he gained the Czech Sudetenland, and in violation of this agreement he completed the dismemberment of Czechoslovakia in March, 1939. But his invasion of Poland on Sept. 1, 1939, precipitated British and French declarations of war.

On May 8, 1945, Germany surrendered unconditionally to Allied and Soviet military commanders, and on June 5 the four-nation Allied Control Council became the *de facto* government of Germany.

At the Berlin (or Potsdam) Conference (July 17-Aug. 2, 1945) President Truman, Stalin and Prime Minister Attlee set forth the principles by which the Allied Control Council was to be guided. They were: Germany's complete disarmament and demilitarization; destruction of its war potential; rigid control of industry; decentralization of the political and economic structure. Pending final determination of territorial questions at a peace conference, the three victors agreed in principle to the ultimate transfer of the city of Königsberg (now Kaliningrad) and its adjacent area to the Soviet Union and to the administration by Poland of former German territories lying generally east of the Oder-Neisse line.

For purposes of control, Germany was divided in 1945 into four national occupation zones, each headed by a Military Governor, assisted by appropriate supervisory and operating staffs.

Efforts to unify Germany were totally unsuccessful, and the western powers were unable to agree with the U.S.S.R. on any fundamental issue. Work of the Allied Control Council was hamstrung by repeated Soviet vetoes; and finally, on March 20, 1948, the U.S.S.R. walked out of the Council. Meanwhile, the U. S. and Britain had taken steps to merge their zones economically (Bizonia); and on May 31, 1948, the U. S., Britain, France and the Benelux countries agreed to set up a German state comprising the three western zones. At the same time the western powers introduced a new German currency.

The Soviet Union replied to these measures by clamping a blockade on all ground communications between the western zones and Berlin. The western Allies, refusing to be driven out of the capital, immediately organized a gigantic airlift to fly supplies into the beleaguered city. Before the Russians were finally forced to lift the blockade on May 12, 1949, 60,000 men were engaged in the airlift.

In return for lifting the blockade, the U.S.S.R. asked only that the Big Four For-

eign Ministers meet again to discuss German unification. The conference, meeting in Paris from May 23 to June 20, 1949, ended as usual in a deadlock.

The Big Four Foreign Ministers met once more at Berlin from Jan. 25 to Feb. 18, 1954, again without success. No progress toward German reunification was made thereafter, despite a number of frequent high-level meetings, the last series being held in Geneva in the summer of 1959.

German Federal Republic (West Germany)

Area: 94,719 square miles.*

Population (est. 1958): 52,150,000 (predominantly German).

Density per square mile: 550.6.

President: Heinrich Lübke.

Chancellor: Konrad Adenauer.

Principal cities (est. 1958): Hamburg, 1,796,713 (chief port); Munich, 1,016,530 (Bavarian capital); Cologne, 749,492 (transportation center); Essen, 719,764 (steel center); Düsseldorf, 679,233 (river port); Frankfurt am Main, 643,111 (manufacturing); Bonn, 130,000 (capital).

Monetary unit: Deutsche Mark (Dm.).

Language: German.

Religions (census 1950): Protestant, 52.2%; Roman Catholic, 43.8%; others, 4.0%.

* Excluding west Berlin.

STATUS IN THE WORLD TODAY

West Germany has allied itself with the western Free World in the cold war with communism, and both its leadership and its people are strongly oriented toward the United States and its foreign policy. On May 26, 1952, it was integrated into the North Atlantic Treaty Organization. Four years later the Bundestag legalized national armament, although clearly specifying that there would be civilian control over the military. Its maximum of twelve divisions will be under the command of the Supreme Allied Commander, Europe, at NATO headquarters. The Germans fear the colossus to the East. They know well how their brothers in East Germany suffer under the Communist yoke and they want none of it. And it is Soviet Russia which unilaterally established the Oder-Neisse line as the definitive eastern boundary of postwar Germany, a decision which West Germany does not recognize.

Some opposition to the extent of the nation's pro-Western policy does exist, by reason of the natural desire of all Germans for reunification of their country. The Social Democrats insist that if West Germany were not allied militarily with the Free World, there might be a chance to negotiate reunification with the Kremlin. This argument, however, seemed to

have lost considerable force in July, 1959, when Prime Minister Khrushchev announced that the line between East Germany and West Germany was the dividing line between Communism and capitalism which Russia would defend to the bitter end. In addition, there are some industrialists who feel they could expand their exports to Iron Curtain countries were it not for the restrictions placed on trade in strategic materials by the United States. All parties are agreed, however, on the necessity of maintaining a free Berlin instead of turning it over to the Communists, as the Soviets argued in vain at a series of Foreign Ministers' conferences in Geneva in the summer of 1959.

West Germany's recovery after its defeat in World War II was little short of phenomenal. To some extent it was due to American aid of some \$3.4 billion, as well as hard work. The recovery is a classic case of the free market economy operating successfully with a limited number of strategically placed controls. It stands in contrast to the economy of East Germany, which has sunk to a much lower level.

German industry has forged ahead by leaps and bounds. By 1953 she had achieved an industrial output 59% higher than in 1936. From 1951 to 1956 West German exports tripled in value. West Germany pushed ahead of Britain for the No. 1 trading position in South America. Her chemical exports passed those of Britain for the first time.

The country's foreign policy was apparently assured of continuity when Chancellor Adenauer decided to continue in his job rather than run for President.

HISTORY AND GOVERNMENT.

The Federal Republic of West Germany, comprising those portions of Germany and Greater Berlin which had been assigned to the American, British, and French zones of control, was proclaimed on May 23, 1949, with its capital at Bonn.

The Constitution of the German Federal Republic embodies the best features of the French Declaration of the Rights of Man, the first ten amendments to the American Constitution, the British Bill of Rights, and the Weimar Constitution. It was adopted by the Parliamentary Council on May 8, 1949, and approved by the High Commissioners on May 12, 1949. It provides for a Federal President, chosen for a term of five years by a Federal Convention. The Parliament consists of two legislative houses. The upper house, the *Bundesrat*, represents and is appointed by the governments of the *Länder*, or states. The lower house, the *Bundestag*, is elected for a period of four years by universal

suffrage. The Chancellor, or Prime Minister, is appointed by the President, though the *Bundestag* reserves the right to elect a Chancellor of its own preference. Each of the ten constituent *Länder* is required to have a republican form of government with an assembly chosen by the people.

ECONOMIC CONDITIONS. *Agriculture.* Agriculture is characterized by mixed farming, the climate and the soil permitting cultivation of a variety of crops and most types of livestock. Rye and potatoes are staple crops in the north; grains and sugar beets in the central regions. The northwestern and southern areas are noted for dairying, while the west is the chief fruit- and wine-producing region. The soil is generally poor, and high crop yields are dependent upon large-scale use of fertilizers.

In Dec. 1957, western Germany (excluding the Saar) had 11,816,000 cattle, 1,025,000 horses, 14,407,000 hogs, and 1,146,000 sheep.

Western Germany is not self-sustaining in food. Difficulties stem to a considerable extent from the fact that Poland now controls the area east of the Oder-Neisse, which contained 28 per cent of prewar Germany's arable land and produced about 25 per cent of its food.

Industry. Western Germany's industry is well-developed and highly diversified. It accounted for about two-thirds of Germany's prewar industrial production and for a large part of iron and steel production.

Shipbuilding has regained its former prominence. Industrial production in 1956 was 140% of the 1953 level.

Western Germany is a member of the European Coal and Steel Community, which commenced activities on Aug. 10, 1952. It has jurisdiction over the production and allocation of coal and steel by its member nations.

Trade. Leading customers in 1957 were EPU countries (54%), the U. S. and Canada (8%), and Sweden (7%); leading suppliers, EPU countries (40%), the U. S. and Canada (20%), and Sweden (4%). Leading exports included machines (18%), vehicles (9%), electrical machinery and apparatus (8%), iron and steel products (5%), and coal (3%); leading imports, coal (5%), copper (4%), iron ore (4%), cotton (4%), and wheat (3%).

Shipping on the Rhine is controlled by the Central Commission of the Rhine—an international body composed provisionally of U. S., British, French, Swiss, Dutch and Belgian representatives—which was reconvened in October 1945.

NATURAL FEATURES AND RESOURCES. The northern plain, the central hill coun-

try and the southern mountain district constitute the main physical divisions of western Germany. The Bavarian plateau in the southwest averages 1,600 feet above sea level, but it reaches 9,721 feet in the Zugspitze, the highest point in Germany.

There are several important navigable rivers. In the south the Danube, rising in the Black Forest, flows east across Bavaria into Austria. The other important rivers flow north. The Rhine, which rises in Switzerland and flows across the Netherlands in two channels to the North Sea, is navigable by smaller vessels as far as Cologne. The Rhine and the Elbe, which also empties into the North Sea, are navigable within Germany for ships of 400 tons. The Weser, flowing into the North Sea, and the Main and Mosel (Moselle), both tributaries of the Rhine, are also important.

Minerals and Forests. Aside from rich deposits of coal and potash, western Germany's mineral wealth is not considerable. The Ruhr, Krefeld and Aachen districts constitute one of the world's greatest coal mining regions.

About 23 per cent of the total area of western Germany is covered by commercial forests, which yield timber as well as material for paper, wood fiber, cellulose and other products.

German Democratic Republic (East Germany)

Area: 41,380 square miles.*

Population (est. 1957): 16,401,000 (predominantly German).

Density per square mile: 396.4.

Soviet High Commissioner: G. M. Pushkin.

President: Wilhelm Pieck.

Premier: Otto Grotewohl.

Principal cities (est. 1957): Leipzig, 598,909 (trading, publishing center); Dresden, 491,714 (railway center, Elbe port); Karl-Marxstadt (Chemnitz), 286,016 (textiles); Halle am der Saale, 280,614 (railway center); Magdeburg, 258,447 (iron and steel products).

Monetary unit: Ostmark.

Religions (census 1946): Protestant, 81.3%; Roman Catholic, 12.1%; others, 6.6%.

* Excluding east Berlin.

STATUS IN THE WORLD TODAY

East Germany is probably the Kremlin's most important satellite because it has placed Soviet military and political influence deep inside Western Europe. As such it is a springboard for further Communist expansion and a first line of defense. The Western powers have refused to acknowl-

edge its legal existence as a state or separate sovereign entity, regarding it as a disguised Soviet dependency which is directly administered by the occupying authority. Its boundaries coincide with the zone of occupation conferred upon the Soviet Union at the end of World War II. The Russians, on the other hand, declared it a "country" in October, 1949, and bestowed upon it "full sovereignty" in September, 1957. This has given the U.S.S.R. an excuse for refusing to negotiate the reunification of Germany, claiming that it is a matter between the "state" of East Germany and the West German Republic. It seeks constantly to bolster the prestige of the East German regime and tried, unsuccessfully, to obtain equal status for it as a participant with other powers at the Foreign Ministers' conferences in Geneva in 1959. The presence of Soviet occupation troops is regulated by a status-of-forces agreement as in Hungary and Rumania and their stationing in East Germany is formally regarded as temporary. But their function in keeping the Communist regime in power was dramatically demonstrated in June, 1953, when they were used to quell a workers' riot in East Berlin.

Economically, East Germany is tied to the Soviet bloc and has made nowhere near the progress achieved by West Germany. Not until the spring of 1958 was food-rationing abolished, but prices remain high and there is a scarcity of consumer items. A seven-year plan to coordinate the Soviet and East German economies calls for sizable expansion of the East German chemical industry and delivery of more chemical and machine industry products to Russia. In return, East Germany will receive greater supplies of raw materials such as oil, pig iron, aluminum, copper, and steel. An economic program adopted in January, 1958, calls for a 25% rise in industrial production in the next three years. Some progress has been made, and according to official figures, East Germany is the second industrial power in the Communist orbit, excluding Russia.

HISTORY AND GOVERNMENT. The so-called German Democratic Republic comprises the Soviet zone of occupation of eastern Germany. It was proclaimed on Oct. 7, 1949, with its seat at Berlin, on the basis of a Constitution adopted May 30, 1949, by a People's Congress chosen under a plebiscite arrangement in elections held in the Soviet zone and eastern Berlin on May 15 and 16, 1949. The Congress elected a People's Council (*Volksrat*) which was transformed on Oct. 7 into a provisional People's Chamber (*Volkskammer*). A Chamber of the States (*Länderkammer*) was nominated on Oct. 10, and on Oct. 11

both chambers elected Communist-leader Wilhelm Pieck as President of the republic and Otto Grotewohl as Minister-President or Premier. The Constitution is soviet in nature and the government is under complete Communist domination. Soviet government supervision is exercised by the Soviet High Commissioner.

The republic lies largely between the Elbe and Oder rivers, including most of Brandenburg, Mecklenburg and the industrial Saxon and Thuringian lands.

ECONOMIC CONDITIONS. About 22 per cent of the population is engaged in agricultural pursuits and the area is almost self-sufficient in foodstuffs. Postwar yields have, however, suffered from droughts and shortages of fertilizers.

Most of the industrial establishments, particularly in heavy industry, have been nationalized. The area accounted for 26 per cent of prewar Germany's industrial production, ranking first in textiles, paper and pulp and ceramics and glass (especially optical glass produced by the famous Jena works). A Two-Year Plan inaugurated in 1949 had the object of raising the volume of production to 81 per cent of the 1936 level by the end of 1950, while a Five-Year Plan initiated in 1951 aimed at doubling the 1936 level by 1955. Official production data for 1957 are as follows: pig iron (1,662,900 metric tons), raw steel (2,894,500 tons), cement (3,460,000 tons).

Foreign trade is carried on through government-owned trading companies. Trade is confined largely to Europe. Important imports include foodstuffs, minerals and textiles; exports include machinery, engineering equipment and chemicals.

NATURAL RESOURCES. The area is not rich in minerals. It has only minor deposits of coal. It does have important deposits of lignite and crude potash.

Berlin

Area: 341.2 square miles.

Population (est. 1957): 3,339,000.

Berlin, the capital of prewar Germany, is surrounded by the German Democratic Republic. It is occupied by the forces of the U. S., the U. K., France and the U.S.S.R., each having its own sector of occupation. The three western sectors contain 55% of the area and $\frac{1}{2}$ of the population.

The supreme authority in western Berlin is a tripartite Kommandatura which has responsibility for the exercise of the powers reserved to the occupation forces under the Berlin Charter, a document analogous to the former west German Occupation Statute. With the termination of the Allied occupation of western Germany, Allied controls were substantially relaxed.

Other powers of government are exer-

cised by a City Assembly elected by popular vote and a *Magistrat* (city council) chosen by the Assembly.

Supreme authority in the eastern sector of Berlin is exercised by the Soviet High Commissioner. Powers not exercised by him or by the German Democratic Republic are vested in a "rump" city government, which proclaimed itself in power Nov. 30, 1948. Major anti-Communist riots broke out in east Berlin in June 1953.

The Saar

Area: 991 square miles.

Population (est. 1955): 996,000.

Density per square mile: 1,005.0.

Premier: Egon Reinert.

Principal city: Saarbrücken (est. pop. 116,395).

Monetary unit: German mark.

The Saar is an industrial and mining region lying on Germany's western frontier north of Lorraine. Under the Treaty of Versailles it was detached from Germany and placed under the administration of the League of Nations, its coal mines being transferred to France. It voted in Jan. 1935 for reunion with Germany.

Part of the French zone of occupation

after World War II, the Saar was politically united with western Germany as one of its constituents on Jan. 1, 1957, under a Franco-German agreement of June 4, 1956, and became economically integrated into Western Germany by the end of 1959. One of the 1954 Paris agreements provided for the so-called Europeanization of the Saar, but this proposal was rejected by the people in a referendum Oct. 23, 1955. Subsequent Diet elections returned a pro-German majority. Under the Saar's Constitution it had a popularly elected Diet of 50 members, to which the Cabinet headed by the Premier was responsible. There was no head of state as such.

The agreement reached by France and West Germany gives France the right to send annually into the Saar goods to the value of 1,000,000,000 marks duty-free and to receive in the next 25 years some 60,000,000 tons of coal from the Warndt coal field. West Germany and France also committed themselves to paying \$100,000,000 to cover the cost of the canalization of the Moselle and France agreed to help electrify the National Railways of Luxemburg in exchange for the latter's endorsement of the construction of the Moselle canal.

Greece (Kingdom)

(Hellas)

Area: 51,182 square miles.*

Population (est. 1957): 8,096,000* (1940, excluding the Dodecanese Greek, 92.8%; Turkish, 3.8%; Macedonian, 1.3%; Spanish, 1%; others, 1.1%).

Density per square mile: 158.2.*

Sovereign: King Paul I.

Premier: Konstantinos Karamanlis.

Principal cities (census 1951, municipal areas only): Athens, 565,084 (capital); Salonika, 217,049 (seaport); Piræus, 186,014 (port of Athens); Patras, 79,014 (seaport); Volos, 51,144 (seaport).

Monetary unit: Drachma.

Languages: Greek, Turkish.

Religions: Greek Orthodox, 96%; Mohammedan, 2%; Jewish, 1.1%; others, .9%.

* Including the Dodecanese.

Cyprus, a British colony. Greek Cypriots demanded union with Greece and undertook a campaign of terrorism and guerrilla warfare. The Turks on the island were vehemently opposed to any such union, and there was some feeling against the United States for not openly backing the Greek side. An agreement making Cyprus a republic with constitutional safeguards for the Turkish minority was reached in February of 1959 and peace was restored.

Traditionally one of the poorest countries in Europe, Greece has made a remarkable postwar recovery, thanks in part to funds supplied by the United States under the Truman Doctrine for the rehabilitation of both Greece and Turkey. Industrial production has soared, railroads and highways have been improved, and the national budget has been balanced. Destruction caused by the war, which was severe, has resulted in rebuilding of more than 1,500 villages and towns and of virtually all roads.

STATUS IN THE WORLD TODAY

Greece, which had to fight and overcome Communist guerrilla forces before it could even begin to recover from the effects of World War II, is a member of the North Atlantic Treaty Organization, which it joined in 1951. It has long had friendly ties with the United States, to which many of its nationals have emigrated, and with Great Britain. From 1955 until 1959, however, relations with these two countries as well as with Turkey were strained because of the question of

HISTORY AND GOVERNMENT. Greece, with a recorded history going back to 766 B.C., reached the peak of its glory in the 5th century B.C., and by the middle of the 2nd century B.C., it had declined to the status of a Roman province. It remained within the Eastern Roman Empire until Constantinople fell to the Crusaders in

1204. In 1453, the Turks took Constantinople, and by 1460 Greece was a Turkish province. The insurrection made famous by the poet Lord Byron broke out in 1821, and in 1827 Greece was set up an independent nation, with sovereignty guaranteed by Britain, France and Russia. Prince Otto of Bavaria was recognized as King five years later, but he was ousted by a revolution in 1862. Prince William of Denmark, as George I, succeeded him.

Greece is a constitutional hereditary monarchy. Its unicameral Parliament is elected by popular vote. Nominal executive power is vested in the King.

ECONOMIC CONDITIONS About three-quarters of the population engages in agricultural pursuits, although only one-fifth of the land is arable. Most of the cultivated area is devoted to cereals: wheat, barley, and maize. There are also olive trees, vines, tobacco, and currants. The principal fruits are oranges, lemons, figs, mandarins, apples, and pears. In Sept., 1957, there were 981,000 cattle, 9,187,000 sheep, and 640,000 hogs.

Development of large-scale Greek manufacturing is blocked by lack of coal resources and of capital. The most valuable products are textiles, chemicals and food items. Among other processed or manufactured products are olive oil, wine, spirits, flour, carpets, leather, cigarettes and building materials.

Leading customers in 1957 were Western Germany (26%), other EPU countries (17%), and the U. S. and Canada (14%); leading suppliers, the U. S. and Canada (17%), Western Germany (19%), and Britain (11%). Leading exports were tobacco (43%) and currants and raisins (17%).

The merchant marine plays a vital part in the national economy.

Reconstruction of the Greek transport system, financed by U. S. aid, was completed in 1949; it included extensive work on highways, port and dry-dock facilities, railways and bridges.

NATURAL FEATURES AND RESOURCES. North central Greece, Epirus and western Macedonia all are mountainous. The main chain of the Pindus Mountains rises to 9,000 feet in places, separating Epirus from the plains of Thessaly. Greek Thrace is mostly a lowland region separated from European Turkey by the lower Maritsa River.

Among the many islands are the Ionian group off the west coast; the Cyclades group to the southeast; other islands in the eastern Aegean, including Lesbos, Samos and Khios; and Crete, the fourth largest Mediterranean island.

The Dodecanese, a group of thirteen islands in the Aegean Sea near the coast of

Asia Minor, were ceded to Greece by the 1947 Italian peace treaty and were formally transferred on March 7, 1948.

Greek minerals are varied but are exploited only moderately. Principal ones are lignite, iron ore, iron pyrites, magnesite, chromite, lead, bauxite, molybdenum, emery, marine salt and marble.

A fifth of the country is forested, largely with pine, fir and oak. Resin and turpentine are main forest products. The principal sea product is sponges.

Guatemala (Republic) (República de Guatemala)

Area: 42,042 square miles.

Population (est. 1957): 3,451,000 (1950:

Indian, 53.5%; mixed and other, 46.5%).

Density per square mile: 82.1.

President: Miguel Y. Fuentes.

Principal cities (est. 1958): Guatemala, 355,254 (capital); Quezaltenango, 33,726 (coffee, sugar); Puerto Barrios, 19,268 (port); Mazatenango 13,728 (coffee).

Monetary unit: Quetzal.

Language: Spanish.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Guatemala, the first nation to overthrow a Communist regime, in so doing deprived the Kremlin of a base of operations in the Western Hemisphere and forced its agents there to flee or go into hiding. Since that time—1954—the government has concentrated on improving the country's economic status, and with the help of the United States—\$80 million of aid in four years—appeared to be on the way to prosperity until a drop in coffee prices slowed down the economy. Coffee constitutes more than 75 per cent of the country's exports. Strikes of railroad workers and port employees also contributed to unsettled conditions, although the government's policy of agrarian reform—giving fifty-acre plots of land to the landless—continued. Early in 1959 an austerity program was put into effect which included a surcharge of 100 per cent on tariffs on goods imported from twenty-eight countries with which Guatemala had an unfavorable balance of trade. In foreign affairs it was involved in a dispute with Mexico over fishing rights in what Guatemala claimed were its territorial waters. As a result of the straining of Mexican fishing boats, Mexico broke off diplomatic relations, which were resumed in Sept. 1959.

HISTORY AND GOVERNMENT. Once the site of the ancient Mayan civilization, Guatemala, conquered by Spain in 1524,

set itself up as a republic in 1839. From 1898 to 1920, the dictator Manuel Estrada Cabrera ran the country, and from 1931 to 1944 General Jorge Ubico Castañeda was the "strong man." In July, 1944, the National Assembly elected General Federico Ponce President, but he was overthrown in October, and in December Dr. Juan José Arévalo was elected as the head of a leftist regime which continued to press its reform program in the face of conservative resistance. He took office on March 15, 1945. Jacobo Arbenz Guzmán, administration candidate with pro-Communist leanings, won the Nov. 1950 elections and took office March 15, 1951.

A new Constitution has been adopted to take the place of that of 1945, which provided that a President be elected every six years by direct vote and could not succeed himself immediately. Legislative power was vested in a unicameral National Assembly of 66 members popularly elected for four-year terms, half the members being elected every two years.

ECONOMIC CONDITIONS. Agriculture engages 90% of Guatemalans. Coffee accounts for a fifth of the cultivated land.

In 1957 the U. S. took 67% of the exports and supplied 61% of the imports. The chief exports were coffee (76%) and bananas (9%). Imports included flour, petroleum products, drugs, and textiles.

NATURAL FEATURES AND RESOURCES. Most of Guatemala is mountainous, with many volcanic peaks. The northern part is the great plain of Petén, largely uncultivated and sparsely populated. The narrow Pacific slope, well watered and fertile, is the most densely populated.

The country's vast forests, mostly in the Petén region, yield chicle for chewing gum, cinchona bark, a small amount of rubber, and dyewoods and cabinet woods.

Guinea (Republic)

Area: 94,925 square miles.

Population (est. 1955): 2,506,852 (mostly Peulhs and Malinkés).

Density per square mile: 26.4.

President: Sékou Touré.

Premier: Sékou Touré.

Principal cities (est. 1955): Conakry, 34,770 (capital); Kankan, 24,550.

Monetary unit: Franc C.F.A. (Colonies Françaises d'Afrique, equal to 2 metropolitan francs).

Languages: French, native tongues (Twî, Fanti, Ga).

Religions: Animist, Moslem, Christian.

STATUS IN THE WORLD TODAY

Guinea, formerly part of French West Africa, achieved its independence as the only colony to vote against the new French

Constitution in September, 1958, declaring its new status on Oct. 2. Since then its avowed position in foreign affairs has been one of pan-African neutralism, and it has created, with Ghana, the Union of Independent African States, presently a loose federation aimed at closer ties in the future.

Western nations, during the first year of Guinea's independence, felt the nation was headed toward the left because of the Marxist trend of the government, headed by President Sékou Touré, and because of its early commercial ties with Iron Curtain countries. East European nations were the first to conclude trade agreement with Guinea, to send technical and commercial delegations, and "gift" shipments of arms, and have tied up an estimated 60 per cent of the country's exports. The Guinea government replied that Western nations, for fear of alienating France, were slow to recognize the new nation and that it wanted economic help wherever it could obtain it.

Economically, Guinea has long been subsidized by France, and the withdrawal of financial help and of administrative personnel upon achieving independence made the transition period difficult. Primarily an agricultural country, its principal exports are bananas and coffee, although it has undeveloped riches in gold, diamonds, iron ore, and bauxite. Private capital from five foreign countries is underwriting the first aluminum plant, but much more aid will be necessary to bring the Koukoure Dam project into being. A technical agreement with France maintaining Guinea in the franc zone was signed in January, 1959, but still remains to be implemented.

HISTORY AND GOVERNMENT. Previously part of French West Africa, Guinea achieved independence by rejecting in September, 1958, the new Constitution of the French Fifth Republic. On October 2, 1958, the Territorial Assembly of French Guinea proclaimed the independent Republic of Guinea and transformed itself into a Constituent Assembly. On November 23, 1958, Ghana and Guinea announced provisional plans to link the two states into a confederation and in December, 1958, Guinea was admitted to full membership in the United Nations.

ECONOMIC CONDITIONS. Guinea is well equipped economically to be independent. It is the second richest country in French Africa. It is rich in bauxite (1958: 800,000 metric tons) and has great reserves of hydraulic power.

Main exports are coffee, bananas, iron ore, bauxite, and palm kernels.

Haiti (Republic)

(République d'Haïti)

Area: 10,748 square miles.
 Population (est. 1957): 3,384,000 (Negro, 95%; mulatto, 5%).
 Density per square mile: 314.8.
 President: François Duvalier.
 Principal cities (census 1950)*: Port-au-Prince, 142,840 (capital, chief port); Cap-Haïtien, 24,957 (seaport); Gonaïves, 13,534 (farming district); Les Cayes, 11,835 (seaport; coffee).
 Monetary unit: Gourde.
 Language: French.
 Religion: Roman Catholic.

* Cities proper, excluding surrounding communes.

STATUS IN THE WORLD TODAY

Intermittent political turbulence, although it has little real influence on the daily lives of the people of Haiti, continues to be the order of the day in this island republic, and as a result stability and systematic growth have yet to come to the country's politics and economy. The election of the present chief executive, President François Duvalier, put an end to one of the shorter periods of chaos which alternate with periods of dictatorship. Although his regime has attempted to restore some semblance of order to the nation's finances, it depends upon the armed forces for its tenure in office. Haiti is also unwillingly involved through purely geographical reasons in the conflict between the revolutionary forces in Cuba and the dictatorship in the neighboring Dominican Republic, with Generalissimo Trujillo threatening to "protect" Haiti with his troops if the revolutionaries opposing him try to land forces there.

Haiti is the one virtually all-Negro nation of the hemisphere. It is a country of small farmers, most of whom own and cultivate mere patches of land. It has the highest illiteracy rate, the deepest poverty, and one of the most meager endowments of natural resources of all the countries of the hemisphere. Despite political instability, the farmers continue to grow their infinitesimal amounts of coffee and corn which the womenfolk bring to the market on their heads. Close to the spirit of their African ancestors, they speak their own peculiar language—a mixture of African dialects, French, Spanish and English—and worship their pagan gods, only slightly influenced by the teachings of the Roman Catholic church.

by Napoleon Bonaparte, a successful uprising led by Jean Jacques Dessalines in 1804 finally established Haiti as an independent nation.

In December, 1945, a revolution put President Dumarsais Estimé in power. His regime was one of the few democratic episodes the country has experienced. There was freedom of press and speech, several political parties were organized, labor movement was established, and a serious attempt was made to plan for the country's economic development. Rudimentary labor legislation was enacted and the foundations of a social security system were laid.

However, President Estimé's attempt to perpetuate himself in power after his term had expired in December, 1949, brought another revolution, the victor of which was General Paul Magloire, who ruled until December, 1956. His regime, a dictatorship, continued many of the social and economic policies of its predecessor. President Magloire, in turn, attempted to stay in office after his term had ended and was overthrown. From December, 1956, until September, 1957, when President Duvalier was installed, there was a period of chaos.

Normally the President is elected for six years by two-thirds vote of the National Assembly. That body consists of a 37-member Chamber of Deputies, elected for four years by popular vote, and a 21-member Senate elected for six years.

ECONOMIC CONDITIONS. Haiti is predominantly agricultural. Coffee, which makes up more than 50 per cent of Haitian exports, is the principal crop, followed by sisal, sugar cane, cotton, bananas, and cacao. Manufacturing is almost entirely for local consumption.

Leading exports in 1957 were coffee (62%), sisal (18%), and sugar (8%). Leading customers were the U. S. (33%), Belgium (21%), and Italy (13%); leading suppliers, the U. S. (62%), Canada (6%), Netherlands Antilles (5%), and Germany (4%).

NATURAL FEATURES AND RESOURCES. Haiti, about the size of Maryland, is two-thirds mountainous, with the rest marked by great valleys, extensive plateaus and small plains. The most densely populated and productive region is the Cul de Sac plain, near Port-au-Prince.

Honduras (Republic)

(República de Honduras)

Area: 43,277 square miles.
 Population (est. 1958): 1,822,000 (1945: mestizo, 89.9%; Indian, 6.7%; Negro, 2.1%; white, 1.3%).
 Density per square mile: 42.1.

HISTORY AND GOVERNMENT. Haiti started its struggle for independence under Toussaint L'Ouverture at the time of the French Revolution in the 1790's. Although this first attempt was suppressed

President: Ramon V. Morales.
Principal cities (census 1950): Tegucigalpa (including twin city of Comayagua), 72,385 (capital); San Pedro Sula, 21,139 (bananas); La Ceiba, 16,645 (seaport, bananas); Tela, 12,614 (seaport).
Monetary unit: Lempira.
Language: Spanish.
Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Honduras, which has had a long history of military dictatorships and political instability, installed a democratically elected administration in January, 1958. There have been several attempted uprisings since then, although the army has pledged itself to uphold constitutional government, and there have been unofficial reports that the would-be rebels were backed by dictators in the Dominican Republic and neighboring Nicaragua. The signing on Feb. 26, 1959, of an agreement between Honduras and Nicaragua to prevent their territories from being used to mount rebellions against each other gave rise to hopes that Honduras might be able to concentrate on its economic problems. It has received several loans to diversify its current coffee-banana economy through the construction of a hydroelectric project and the establishment of a paper and pulp industry.

HISTORY AND GOVERNMENT. Columbus discovered Honduras on his last voyage in 1502. Honduras declared its independence from Spain in 1838, and has been troubled by revolution and war ever since. American Marines intervened in 1903 and 1923. In 1931, 1932, and 1937 major revolutions were crushed by force. The Nicaraguan-Honduras boundary dispute of 1937 almost caused war, and in April, 1945, the country was invaded from Guatemala by a group of Honduran exiles, who were suppressed. The Constitution of Honduras provides for a President elected by popular vote for only one term of 6 years and for a unicameral Congress elected by popular vote for 6 years.

ECONOMIC CONDITIONS. In 1957 the U. S. took 63% of the exports and supplied 69% of the imports. Leading exports were bananas (52%), coffee (18%), and silver (3%).

NATURAL FEATURES AND RESOURCES. Honduras, in the north central part of Central America, has a 400-mile Caribbean coast-line and a 40-mile Pacific frontage. Generally mountainous, it has fertile plateaus and river valleys and narrow coastal plains.

Gold and silver are the most important mineral products of Honduras.

Hungary (Republic)

Area: 35,905 square miles.
Population (estimated 1958): 9,857,000 (Magyar, German, Slovak).
Density per square mile: 274.5.
Chairman of Presidium: István Dobi.
Prime Minister: Ferenc Munnich.
Principal cities (est. 1954): Budapest, 1,781,085 (capital, Danube port); Miskolc, 135,780 (industrial center); Debrecen, 113,248 (livestock); Szeged, 88,590 (textiles, wheat); Pécs, 87,140 (farming).
Monetary unit: Forint.
Languages (census 1949): Hungarian, 98.7%; Slovak, .3%; German, .2%; Rumanian, .2%; others, .6%.
Religions (est. 1949): Roman Catholic, 70.6%; Calvinist, 22.8%; Lutheran, 3.3%; Jewish, 1.9%; Greek Orthodox, .4%; others, 1%.

STATUS IN THE WORLD TODAY

Hungary, where communism came at Soviet gunpoint and could be restored only by Red Army tanks when, in 1956, the Red puppets were swept out of office by a popular, nation-wide revolt, is outwardly tranquil now only because of the continued presence of Soviet troops. Recognizing the fact that even the workers were opposed to the regime, the government has liquidated the workers' councils as well as many of their leaders. Many intellectuals have been arrested and imprisoned. The shaky administration is determined to settle scores with all those who collaborated in overthrowing the "people's democratic order." Thousands were executed, placed in internment camps, imprisoned, or deported to Siberia. More than 200,000 managed to flee the country, however, and as a result the Communist party faces a man-power shortage in many fields, especially the professions. Economically, Hungary is at least a temporary liability to the Soviet bloc.

The revolution, although unsuccessful because of Soviet intervention, did, however, cause incalculable harm to the Communist cause. The bloody suppression precipitated a revulsion of feeling against the Reds and led to the disillusionment of many a Communist or Communist sympathizer. It also smashed the myth of invincibility of the totalitarian system from within and demonstrated the elemental strength of an aroused people. But the Iron Curtain has been rigidly drawn around Hungary to prevent the Free World from learning additional facts about the revolt, and United Nations observers and committees have been refused admittance to the country.

HISTORY AND GOVERNMENT. About 2,000 years ago, Hungary was part of the

Roman provinces of Pannonia and Dacia on the empire's borders. In A.D. 894 it was invaded by the Magyars, who founded a kingdom. Christianity was accepted during the reign of Stephen I (St. Stephen) from 997 to 1083. The peak of Hungary's great period of medieval power came in 1342-82 under King Louis the Great (Louis I) of Anjou, whose dominions touched the Baltic, Black, and Mediterranean seas. When the Turks smashed a Hungarian army in 1526, western and northern Hungary accepted Hapsburg rule to escape Turkish occupation. Transylvania became independent under Hungarian princes. Intermittent war with the Turks was waged thereafter for some years.

After the suppression of the 1848 revolt against Hapsburg rule led by Louis Kossuth, the dual monarchy of Austria-Hungary was set up in 1867.

The dual monarchy was defeated with the other Central Powers in World War I, and the new Hungary underwent hard times. First there was a short-lived Socialist republic in 1918. The chaotic Communist rule of 1919 under Béla Kun ended with the Rumanians occupying Budapest on Aug. 4, 1919. When the Rumanians left, Admiral Nicholas Horthy entered the capital with a national army. The Treaty of Trianon of June 4, 1920, cost Hungary 75 per cent of its land and more than 50 per cent of its population. Meanwhile, the National Assembly had restored the legal continuity of the old monarchy; and on March 1, 1920, Horthy was elected Regent.

Following the German invasion of Russia on June 22, 1941, Hungary joined the attack against the U.S.S.R., but the war was not popular and Hungarian troops were almost entirely withdrawn from the eastern front by May 1943. German occupation troops set up a puppet government after Admiral Horthy's appeal for an armistice with advancing Soviet troops had resulted in his overthrow on Oct. 16. The German regime soon fled the capital, however, and on Dec. 23 a provisional government was formed in Soviet-occupied eastern Hungary. On Jan. 20, 1945, it signed an armistice in Moscow. On Feb. 1, 1946, the National Assembly approved a constitutional law abolishing the 1,000-year-old monarchy and establishing a republic.

ECONOMIC CONDITIONS. Agriculture is the basis of Hungarian economic life, engaging more than half the population. The Land Reform Act issued in March, 1945, provided for the confiscation of all estates over 1,500 acres; about 8,000,000 acres were divided among some 500,000 families. Cereals grown in the fertile Danubian plains are the chief crops. Leading crops in 1956 were wheat, potatoes, barley, rye, oats, maize, and sugar beets.

In addition, cultivation of vines, fruit and garden produce is important; the famous Tokay wine is produced on the southern slopes of the Hegyalja in the northeast.

Horse-breeding is a traditionally important branch of agriculture. Hungarians have a great love for horses, and their excellent breeds were exported in large numbers before World War II. Livestock in 1958 included 2,050,000 sheep, 5,338,000 hogs, 1,973,000 cattle, and 724,000 horses.

The dominant industries are all based on agriculture, with flour milling in first place, followed by sugar refining, brewing and canning. The second group of industries make hardware and machinery. Most of the machine industry is concentrated in Budapest and Győr. Cotton leads the textile industry, especially in Budapest, which is also a center of woolen manufactures. Hemp and flax weaving are important. An estimated 885,000 persons were employed in industry in 1954. Almost all industrial facilities were nationalized under laws passed in 1946, 1948 and 1949. In addition, the Soviet Union took over all German-owned plants as reparations, and in 1946 Soviet-Hungarian companies were formed to exploit bauxite, petroleum, and air and river navigation; the Soviet shares in these companies were sold to Hungary in 1954.

Leading exports include grain, textiles, live animals and products, and machinery.

NATURAL FEATURES AND RESOURCES. Most of Hungary is a fertile, rolling plain lying east of the Danube, and drained by the Danube and the Tisza Rivers. In the extreme northwest is the Little Hungarian Plain. South of that area is Lake Balaton, 250-square miles, the largest lake of western and central Europe.

While Hungary generally is mineral-poor, it has about 20% of the world's known reserves of bauxite. The coal is of low quality and is insufficient to meet domestic needs. Other minerals include iron ore, manganese, and gold.

Iceland (Republic)

(Island)

Area: 39,768 square miles.*

Population (est. 1957): 165,000 (almost entirely Icelandic).

Density per square mile: 4.1.

President: Asgeir Asgeirsson.

Prime Minister: Emil Jonsson.

Principal city (est. 1957): Reykjavik, 67,137 (capital and only large city).

Monetary unit: Króna.

Languages: Icelandic,

Religion: Evangelical Lutheran.

* Including several off-shore islands.

HISTORY AND GOVERNMENT. Iceland was first settled shortly before 900, mainly

by Norse. A Constitution drawn up about 930 created a form of democracy and provided for an Althing, or General Assembly, now the oldest legislative body in the world. In 1262-64, Iceland came under Norwegian rule and passed to ultimate Danish control through the formation of the Union of Kalmar in 1483. In 1874 Icelanders obtained their own Constitution. In 1918 Denmark recognized Iceland as a separate state with unlimited sovereignty, but still nominally under the Danish King. On June 17, 1944, after a popular referendum, the Althing proclaimed Iceland a completely independent republic.

The British occupied Iceland in 1940, immediately after the German invasion of Denmark. In 1942, the United States took over the burden of protection. Iceland refused to abandon its neutrality in World War II, and thus forfeited charter membership in the United Nations, but it was cooperative with the Allies throughout. Iceland joined the North Atlantic Treaty Organization in 1949, and in May 1951, U. S. troops again landed at Iceland's request to aid in its defense preparations. Withdrawal of an Icelandic request for evacuation of U. S. troops was announced Dec. 6, 1956.

Constitutionally, the President of Iceland is elected for four years by popular vote. Executive power of the state resides in the Prime Minister and his Cabinet. The Althing (Parliament) is composed of 52 members in two houses. At an election the 52 members elect 17 of themselves to constitute the Upper House, the remaining 35 members representing henceforth the Lower House. In May, 1959, the Althing approved a bill providing for a new system of proportional representation and increasing the number of elected representatives from 52 to 60. The Althing can dismiss the Cabinet and the latter can dissolve the former. The President of the Republic cannot veto bills and can be removed from office by the Althing provided this action is subsequently approved by majority vote in a national plebiscite.

ECONOMIC CONDITIONS. Approximately six-sevenths of Iceland is unproductive, and only one-half of one per cent is under cultivation. With about 20 per cent of the population engaged in farming, sheep raising is the most important branch of this industry. Hay, potatoes, and turnips are the principal crops.

Fish and fish products accounted for 91% of the exports in 1957. Leading customers were the U.S.S.R. (22%), the United States and Canada (9%), Britain (9%), and western Germany (9%); leading suppliers, the United States and Canada (14%), the U.S.S.R. (21%), and EPU countries (29%).

NATURAL FEATURES AND RESOURCES. Iceland, a bleak, volcanic island about the size of Kentucky, has maximum dimensions of 298 by 194 miles; it is mostly tableland, high, rugged, and barren. It is one of the world's most volcanic regions.

Small fresh-water lakes are found throughout the island, and there are many natural oddities, including hot springs, geysers, sulfur beds, canyons, waterfalls, and swift rivers. More than 13 per cent of the area is covered by snowfields and glaciers, and most of the people live in the 7 per cent of the island comprising fertile coastlands. Vegetation is of the Arctic type, mostly stunted. Except for peat and fisheries, Iceland has no natural resources.

About one-tenth of the people are engaged in fishing, and fish and fish products make up the bulk of Iceland's exports. The annual catch averages approximately 350,000 metric tons. Many European fishing craft visit Iceland's fisheries, which lead the world in cod and are important for herring, plaice and halibut.

Indonesia (Republic)

(Republik Indonesia)

Area: 575,893 square miles.*
Population (est. 1957): 86,900,000.*
(Indonesian, except for an estimated 1,500,000 Chinese and 100,000 Europeans in 1951).

Density per square mile: 150.9.*

President: Sukarno.

Premier: Sukarno.

Principal cities (est. Dec. 31, 1956): Jakarta, 1,927,785 (capital); Surabaya, 980,905 (industrial center); Bandung, 870,346 (commercial center, west Java); Semarang, 389,970 (seaport, central Java); Surakarta, 380,843 (industrial center); Makassar, 346,080 (coffee, teak); Medan, 303,261 (rail center, Sumatra).

Monetary unit: Rupiah.

Languages: Bahasa Indonesia (Malay) (official), Dutch, Javanese, Sundanese, Madurese.

Religions: Moslem (predominant), Christian (about 2,500,000), Brahmin, Buddhist.

* Excluding Netherlands New Guinea.

STATUS IN THE WORLD TODAY

Indonesia, like many another former colony, is neutralist in its foreign policy, although the local Communist groups have tried to take advantage of the new country's political and economic difficulties to bring about a more pro-Soviet orientation. Under President Sukarno's conception of a "guided democracy," consisting in part of a cabinet representing all parties, they have had some part in the central government, although of late their influence has been curbed by anti-Communists in the army.

Domestic politics have been characterized by a multiplicity of parties and grave cabinet instability. The centralization of powers, particularly economic, in the hands of the government in Java eventually gave rise in 1958 to widespread antagonism in the other islands, which felt they were being drained economically for the benefit of the overcrowded Javanese, and led to armed rebellion. The central government quickly and efficiently put down the revolt, although scattered guerrilla resistance still exists in outlying districts. But the resentment and the regional grievances, including a steady leftward drift at Jakarta, had a moderating effect on the government, which has promised a fairer economic deal for the outer regions in the future.

Indonesia's economic difficulties were further aggravated by the seizure of Dutch properties as a result of the dispute over West New Guinea, which the Dutch refused to turn over to Indonesia at the time of independence and which the latter claimed as an integral part of the republic. There was a sudden dearth of shipping to carry Indonesian exports because of a lack of trained personnel to operate ships and to operate other seized industries. The West New Guinea dispute also led to a coolness toward the United States because of our refusal to support Indonesia in this matter.

In July, 1959, President Sukarno assumed dictatorial powers by dissolving the constituent assembly and reinstating the 1945 Constitution. Fiscal measures in August resulted in a financial crisis.

HISTORY. The sovereign state of Indonesia, a group of islands with a total area more than twice that of Texas, constitutes one of the world's richest natural areas. These islands—Sumatra, Java, Madura, central and southern Borneo, Celebes, and the Moluccas—would reach from San Francisco to Honolulu if their extent was transposed to the eastern Pacific. They have great wealth in tin, rubber, spices, oil, quinine, and copra.

During the first few centuries of the Christian era, most of the islands came under the influence of Hindu priests and traders who spread their culture and religion. Moslem invasions began in the thirteenth century, and most of the area was Moslem by the fifteenth century. Portuguese traders arrived early in the sixteenth century but were ousted by the Dutch about 1595. After Napoleon subjugated the Netherlands homeland in 1811, the British seized the islands but returned them to the Dutch in 1816. In 1922 the islands were made an integral part of the Netherlands kingdom.

In World War II, the Japanese military occupation with nominal native self-government continued until Aug. 1945, except in outlying parts of New Guinea and Borneo. About the time of the Japanese surrender, a self-styled Indonesian Republic headed by Achmed Sukarno sprang up and took over effective control of parts of Sumatra and Java. Allied forces, mostly British Indian troops, moved in, and fighting between them and the nationalists continued until Nov. 15, 1946, when Dutch-Indonesian parleys resulted in a draft agreement that contemplated the formation by Jan. 1, 1949, of a Netherlands-Indonesian Union, consisting on the one hand of the Netherlands, the Netherlands Antilles and Surinam and on the other of the United States of Indonesia, which was to be a sovereign nation composed of three equal states—the Republic of Indonesia, East Indonesia, and Borneo. Differences of interpretation ensued, and the Dutch resorted to force on July 20, 1947. Both sides issued cease-fire orders on Aug. 4, 1947, in response to a call from the U. N. Security Council.

After the Dutch and the Republic signed another truce on Jan. 17, 1948 a provisional federal government for the whole area was installed on Mar. 9, 1948, but difficulties between the Dutch and the Republic continued. On Dec. 18, 1948, Dutch forces instituted "police" action against Republican areas and seized the Republican leaders. Hostilities ceased Jan. 1, 1949, following U. N. intervention. On May 7, the Dutch agreed to return the exiled Republican regime to central Java.

On Nov. 2, 1949, Dutch and Indonesian leaders agreed upon the terms of union between the Netherlands and Indonesia. Dr. Sukarno was elected President of the federation on Dec. 16 by representatives of the Indonesian states, and the first all-Indonesian Cabinet was formed with Mohammed Hatta as Premier. The transfer of sovereignty took place at Amsterdam on Dec. 27, 1949. In July, 1959, Sukarno decreed a full return to the 1945 Constitution.

ECONOMIC CONDITIONS. The islands of Java and Madura, with only 9 per cent of the area, have more than two-thirds of the population, and are among the most densely settled areas in the world (more than 1,000 per sq. mi.). The people, including about 137 races and tribes, are mainly of Malayan stock, with the Javanese the most advanced.

Agriculture engages about 70 per cent of the adult males. Rich in a variety of crops, the islands prior to World War II produced about 31 per cent of the world's copra, 37 per cent of its rubber, 83 per cent of its pepper, and nearly all of its quinine. The big-estate agriculture on Java and Suma-

tra is devoted mainly to export. The rest is subsistence agriculture. Rice is the staple food and chief crop. Major plantation crops are rubber, tea, coffee, cinchona bark, palm kernels, and sugar. Others are copra, cacao, spices, agave fiber, and kapok. In addition to rice, the chief food crops are maize, cassava, sweet potatoes, peanuts, and soybeans.

In 1957 there were an estimated 5,059,000 cattle, 2,807,000 sheep, 1,469,000 hogs, 584,000 horses, and 2,888,000 buffalo.

Industry, especially in Java, developed rapidly after 1930. In addition to industries connected with the processing of the rich natural products, there were established chemical works, textile and paper mills, soap factories, breweries, shipyards, a Goodyear tire and rubber plant, and a General Motors assembly plant.

Indonesia is primarily an importer of consumer and capital goods and an exporter of mineral and plantation products.

Chief exports in 1957 were rubber (36%), petroleum and products (30%), tin (5%), copra (4%), and tea (3%). Leading customers were Singapore and Malaya (29%), the Netherlands (17%), the United States (16%), and Britain (10%); leading suppliers, the United States and Canada (17%), Japan (15%), the Netherlands (10%), and Britain (6%).

NATURAL FEATURES AND RESOURCES. A backbone of high mountain ranges with many snow-capped peaks extends throughout the main islands of the archipelago. Earthquakes are frequent, and there are many active volcanoes, ninety of them in Sumatra. Borneo is heavily forested.

Petroleum is the principal mineral product of modern Indonesia. The tin industry attained prewar levels more rapidly than others after World War II. Other important minerals include bauxite, coal, salt, nickel, and manganese.

Most valuable timber is teak, found mostly in east Java. Ebony, sandalwood, and ironwood also are cut.

Iran (Kingdom)

Area: 636,293 square miles.

Population (est. 1958)*: 19,723,000 (Iranian, Kurdish, Azerbaijani).

Density per square mile: 31.0.

Ruler: Mohammed Riza Pahlavi.

Premier: Manouchehr Eghbal.

Principal cities (est. 1956): Teheran, 1,513,614 (capital); Tabriz, 290,195 (manufacturing center); Isfahan, 254,876 (cotton, tobacco); Meshed, 242,165.

Monetary unit: Rial.

Languages: Iranian (Persian), Kurdish, Azerbaijani.

Religions: Moslem (Shiah), about 90%; Moslem (Sunni), about 5%; Armenian; Jewish; Nestorian; Parsi.

STATUS IN THE WORLD TODAY

Iran, as one of the Middle Eastern Islamic nations which is not of Arab stock, has not been subject to as much Anti-Western pressure from nationalist pan-Arab sources as have other countries in the area. But as a nation bordering upon the Soviet Union, it has been subjected to extreme anti-Western pressure from Moscow because of the fact that it is a signatory to the Baghdad Pact, a defense treaty linking the "Upper Tier" of states between the U.S.S.R. and the Middle East.

As a major oil-producing nation and as a potential gateway to the rest of the Middle East, Iran has long been a target of Kremlin imperialism. Early in 1959, when Iran was negotiating a bilateral defense agreement with the United States, the Soviet Union offered to negotiate a nonaggression and economic pact if Iran would refuse to sign any agreement with the United States. Iran, however, elected to accept defense assistance from the United States, and again became the target of violent Communist abuse and of Moscow's threats to invoke sections of a 1921 treaty which permits the U.S.S.R. to move troops into Iran if forces of a hostile third nation enter the latter country. Iran countered by denouncing the treaty articles in question.

Although Iran is a major oil producer, it has had to obtain nearly \$500 million in American aid since 1951. The Shah himself has taken steps to break down the feudal land ownership system, which provided fuel for Communist propaganda, by distributing his own farm properties to peasants of more than 300 villages.

HISTORY. Oil-rich Iran, was called Persia before 1935. Its key location blocks the lower land gate to Asia, and also stands in the way of traditional Russian ambitions for access to the Indian Ocean. After periods of Assyrian, Median, and Achaemenidian rule, Persia became a powerful empire under Cyrus the Great, reaching from the Indus to the Nile at its zenith in 525 B.C. It fell to Alexander in 331-30 B.C., to the Selucidae in 312-02 B.C., and to the Parthians about 130 B.C. A native Persian regime arose about A.D. 224, was weakened fighting the Turks, and fell to the Arabs in 637. In the twelfth century the Mongols took their turn ruling Persia, and in the early eighteenth century the Turks and Russians occupied it.

An Anglo-Russian convention of 1907 divided Iran into two spheres of influence. British attempts to impose a protectorate over all of Iran were defeated in 1919. On Feb. 26, 1921, General Riza Pahlavi seized the government and was elected hereditary

* U.N. estimate; no census ever taken.

Shah in 1925. Subsequently he did much to modernize the country and abolished all foreign extraterritorial rights.

Increased pro-Axis activity led to Anglo-Russian occupation of Iran in August, 1941, and deposition of the Shah in favor of his son, Mohammed Riza Pahlavi.

In November, 1945, a Soviet-inspired autonomist movement won control of Azerbaijan, Iran's northwest province. To protect their advantage, the Russians kept troops in that area past the treaty evacuation date of March 2, 1946. The Iranians promptly protested this breach of agreement to the United Nations. The Russians evacuated their troops on May 6.

Ali Razmara became Premier June 26, 1950, and pledged to restore efficient and honest government, but he was assassinated Mar. 7, 1951. Mohammed Mossadegh took over April 29. Parliament completed action on a bill nationalizing the oil industry over strong British protests.

Mossadegh was ousted Aug. 19, 1953, in a coup d'état led by Fazollah Zahedi, whom the Shah had named Premier. The oil dispute was settled in Aug. 1954. Hussein Ala succeeded Zahedi as Premier on Apr. 7, 1955; Ala was succeeded by Manouchehr Eghbal April 3, 1957.

GOVERNMENT. Iran is a constitutional monarchy, and the Shah has the usual powers of the head of a parliamentary state. Executive power is exercised by a Cabinet headed by the Prime Minister, who is appointed by the Shah and is responsible to Parliament, the lower house of which (Majlis) has 136 popularly elected members and the upper house of which (Senate) has sixty members, half of whom are appointed by the Shah.

ECONOMIC CONDITIONS. Iran is predominantly agricultural. Large estates are numerous, and irrigation is common, especially on the central plateau. The principal crops are wheat and barley.

Other crops include rice, grapes, dates, apricots, tobacco, tea, cotton, sugar beets, and corn. There are extensive grazing lands. In 1955 there were an estimated 21,650,000 sheep.

Iran must still import many manufactured necessities, but several new factories were established by the government after 1925, including sugar plants, rice and oil mills, textile factories, a cement factory, copper smelter, glycerine factory, and small arms factory. Both sugar and tobacco are government monopolies. The manufacture of carpets, for which Iran is famous, is a valuable industry.

In 1956-57 the leading customers were the United States and Canada (11%), West Germany (8%), and other continental European Payments Union countries

(27%); leading suppliers, West Germany (20%), other continental EPU countries (12%), and the United States and Canada (16%). The principal exports in 1956-57 were cotton (10%), petroleum (54%), and rugs (7%).

NATURAL FEATURES AND RESOURCES. Iran is, in general, a plateau averaging 4,000 feet elevation. In addition, there are maritime lowlands along the Persian Gulf and the Caspian Sea. The Elburz Mountains in the north rise to 18,603 feet at Mt. Demavend. From northwest to southeast, the country is crossed by a desert 800 miles long.

Considerable mineral wealth exists, but only oil is exploited commercially. The principal field, near Shushar in the southwest, was worked until 1951 by the Anglo-Iranian Oil Company. The latter's concession began in 1901 and was to run until 1993, but its properties were nationalized by the Iranian government in April, 1951. Production under Iranian control was negligible. Under an agreement signed Sept. 19, 1954, Iran's oil is being produced, refined and marketed by a consortium of eight western oil companies, with 50% of the profits going to Iran. The consortium began production Oct. 29, 1954.

The main forest belt on the northern Elburz slope supplies railroad ties, charcoal and firewood.

Iraq (Republic)

Area: 171,599 square miles.*

Population (census 1957): 6,274,579 (Arab, 75%; Kurdish, 15%; Iranian, 3.75%; others, 6.25%).

Density per square mile: 36.5.

President: Najib al-Rubai.

Premier: Brig. Abdul Karim Kassem.

Principal cities (census 1957, cities proper): Baghdad, 355,958 (capital); Mosul, 179,646 (oil); Basra, 164,623 (chief port).

Monetary unit: Dinar.

Languages: Arabic, Kurdish.

Religions (census 1947): Moslem, 93.6%; Christian, 3.1%; Jewish, 2.5%; others, .8%.

* Includes desert area of 80,583 square miles.

STATUS IN THE WORLD TODAY

The military regime which has ruled Iraq since the coup d'état of July, 1958, has thus far shown itself to be extremely anti-Western and ultra-nationalistic. It has gradually been expelling, or releasing, all military, economic, agricultural, educational, and other experts who had been brought in by the previous governments to help in the development of the country. Although it has enjoyed the support of the Communists since the beginning, it has discouraged all political parties, and a prominent Communist has yet to be

named to high office. In fact, the Communists assailed Brigadier Kassem's choice of a Foreign Minister appointed on the first anniversary of the revolution. It remains to be seen how long the Communist-Kassem honeymoon lasts. As long as the Kassem regime carries out one of the basic Soviet aims—the elimination of all Western influence—there is no need for the popular front which is usually organized to help the Communists to power.

Although the Iraq revolutionary movement is nationalistic, and no doubt was influenced by the success of Nasser's nationalistic administration in Egypt, it is not pan-Arabic to the extent that the United Arab Republic expected. During the first year, relations between the two governments were anything but friendly, with the Cairo radio assailing the Communists and the U.A.R. allegedly having financed and organized a revolt against the Kassem regime by a group of young officers in the Mosul area early in 1959. A second "disturbance" in the same general area took place on the occasion of the anniversary, when pro-Communist Kurds were joined by a few officers in fighting against loyal troops in Kirkuk. In recent decades, leaders of nationalistic Kurds, who inhabit parts of Iraq, Iran, and Turkey, and who would like to see the creation of an independent Kurdistan, have fled to the U.S.S.R. and been trained there by the Kremlin. Approximately 1,000 of these returned to Iraq after the revolution and can be presumed to be busy spreading Soviet propaganda in all three countries. To many of the Iraqi Kurds, however, the Communist domination has become so oppressive that they have fled to neighboring Turkey.

With Iraq out of the Baghdad Pact, the name of the anti-Communist group was changed to the Central Treaty Organization, to be known as CENTO.

HISTORY. Iraq, a triangle of mountains, desert, and fertile river valley is bounded east by Iran, north by Turkey, west by Syria and Jordan, and south by Saudi Arabia. From earliest times it has been known as Mesopotamia—the land between the rivers—for it embraces a large part of the alluvial plains of the Tigris and Euphrates.

An advanced civilization existed in Mesopotamia by 4000 B.C. Sometime after 2000 B.C. it became the center of the ancient Babylonian and Assyrian empires. It was conquered by Cyrus the Great of Persia in 538 B.C., and by Alexander in 331 B.C. After an Arab conquest in A.D. 637–40, Baghdad became capital of the ruling caliphate. The country was cruelly pillaged by the Mon-

gols in 1258, and during the sixteenth, seventeenth, and eighteenth centuries was the object of repeated Turkish-Persian competition.

Nominal Turkish suzerainty imposed in 1638 was replaced by direct Turkish rule in 1831. In World War I an Anglo-Indian force occupied most of the country, and Britain was given a mandate over the area in 1920. The British recognized Iraq as a kingdom in 1922 and terminated the mandate in 1932, when Iraq was admitted to the League of Nations. In World War II, Iraq generally adhered to its 1930 treaty of alliance with Britain, but in 1941 British troops were compelled to put down a pro-Axis revolt led by Prime Minister Rashid Ali. Iraq became a charter member of the Arab League in March, 1945, and Iraqi troops took part in the Arab invasion of Palestine in 1948. The 1930 treaty of alliance with Britain was terminated in April, 1955, and replaced by a defense co-operation agreement.

King Faisal II, born on May 2, 1935, succeeded his father, Ghazi I, who was killed in an automobile accident on April 4, 1939. King Faisal and his uncle, Crown Prince Abdul-Ilah, were assassinated in August, 1958, in a swift revolutionary coup which brought to power a military junta headed by Abdul Karim Kassem. The short-lived "Arab Union" formed by the federation of Iraq and Jordan in February, 1958, came abruptly to an end with recognition by the U.A.R. of the rebel government of Iraq.

ECONOMIC CONDITIONS. The chief economic activity is agriculture, dependent upon irrigation and confined to the valleys of the Tigris and Euphrates. Iraq supplies about 80 per cent of the world's dates. Chief among the cereal products of Iraq are barley, wheat, rice, sorghum, maize, and millet. Many fruits and some tobacco and cotton are grown. Grazing is the principal occupation of the many nomadic and seminomadic tribes.

Industry is still embryonic. Of some 100 firms, the most important are those making brick, tile, woolen textiles, vegetable oils, soap, glass, and cigarettes.

Chief exports in 1957 were petroleum (88%), dates (3%), and barley (2%). Leading suppliers in 1957 were Britain (29%), the United States and Canada (15%), and Japan (8%); leading customers, France (21%), Italy (19%), and Britain (12%).

The only port for seagoing vessels is that of Basra, located on the Shatt al-Arab River near the head of the Persian Gulf.

NATURAL FEATURES AND RESOURCES. Iraq has arid desertland west of the Euphrates, a broad central valley between

the Euphrates and Tigris, and mountains in the northeast. The fertile lower valley is formed by the delta of the two rivers, which join about 120 miles from the head of the Persian Gulf. The gulf coast line is 26 miles.

Oil production is concentrated at the Baba Gurgur fields near Kirkuk, which are operated on behalf of an international group by the British-managed Iraq Petroleum Company. Associated companies operate fields at Zubair and Rumaila near Basra and at Ain Zalah and Butmah. The Khanagin Oil Company, a British Petroleum subsidiary, operates another field which produces only for local consumption.

Oil is piped to Tripoli in Lebanon, Baniyas in Syria, Fao on the Persian Gulf, and Haifa in Israel (suspended in 1948). The Iraqi government received an estimated \$250 million in oil revenues in 1959.

Ireland (Republic)

Area: 26,601 square miles (not including larger water bodies).*

Population (est. 1958): 2,853,000 (almost entirely Irish).

Density per square mile: 107.3.

President: Eamon de Valera.

Prime Minister: Sean Lemass.

Principal cities (census 1956): Dublin (Baile Atha Cliath), 539,476 (capital); Cork, 80,011 (seaport); Limerick (Luimneach), 50,886 (seaport).

Monetary unit: Irish pound.

Languages: Gaelic, English.

Religions (census 1946): Roman Catholic, 94.3%; Protestant Episcopal, 4.2%; Presbyterian, .8%; others, .7%.

* Total area: 27,136 square miles.

STATUS IN THE WORLD TODAY

Although there is little doubt that the Irish believe in the basic principles of Free Europe and strongly oppose the Soviet way of life, the Republic of Ireland has remained firmly aloof from political commitments in Western European integration of Free World alliances. This attitude, as well as Eire's official neutrality in World War II, can be traced to the problem of the division of the island into the republic, comprising the twenty-six southern counties, and the six northeastern counties of Ulster, with a separate government closely bound to England. Protestant in faith and largely industrial, whereas the republic is predominantly Roman Catholic and agricultural, Northern Ireland remains detached from the rest, despite the demand for Irish unity which still persists in Eire, a feeling often expressed in border raids and bombings. The official policy of the government of Eire, however, is that the solution must come about in a peace-

ful manner. The foreign policy toward the United States is extremely friendly.

HISTORY. About the beginning of the Christian Era, Ireland was divided into five kingdoms, each with its own ruler, but each subject to the overlord of all Ireland who dwelt at Tara. St. Patrick introduced Christianity in A.D. 432.

Norse depredations along the coasts, starting in 795, ended in 1014 with Norse defeat at the Battle of Clontarf by forces under Brian. In the middle of the 12th century, the Pope gave all Ireland to the English Crown as a papal fief. In 1171 Henry II of England was acknowledged "Lord of Ireland," but local sectional rule continued for centuries, and English control over the whole island was not reasonably absolute until the 17th century. By the Act of Union (1800), England and Ireland became the "United Kingdom of Great Britain and Ireland."

The great potato famine of 1846-48 took many lives and drove millions to emigrate to America.

GOVERNMENT. Ireland is a sovereign, independent republic. The President, directly elected for seven years, names the Prime Minister on the nomination of the Chamber of Deputies. Parliament (Oireachtas) has two houses. The Chamber of Deputies (Dáil Eireann) has 147 members elected by proportional representation for a five-year term. The Senate (Seanad Eireann) has 60 members, of whom 11 are named by the Prime Minister, 6 by the universities, and 43 from vocational panels. Its powers, however, are limited.

The majority of the people are English speaking, although the government has attempted to promote the traditional Gaelic language, which is an essential part of the curriculum for all state schools.

ECONOMIC CONDITIONS. Principal crops are wheat, oats, potatoes, sugar beets. Other staple crops are rye, flax, turnips, cabbage, and hay. Livestock in June, 1957, included 4,430,000 cattle, 3,708,000 sheep, and (1956) 747,100 hogs.

Leading manufactures are ordinarily beverages, tobacco, wood, paper, clothing, textiles and metals. The hydroelectric plant erected on the Shannon River in County Limerick provides cheap electricity for homes and factories.

The United Kingdom (including Northern Ireland) was the leading customer in 1957 (77%). The United Kingdom was also the chief supplier (57%), followed by the U. S. and Canada (8%) and Western Germany (4%). Major exports were live animals (42%), beef and veal (6%), beer (5%), and chocolate crumb (5%). Major

Imports were oils, fats, resins and gums, textiles, machinery, and vehicles.

NATURAL FEATURES AND RESOURCES. Occupying the entire island except for the six northern countries of Ulster, Ireland resembles a basin—a central plain rimmed with mountains, except in the Dublin region. The mountains are low, with the highest peak, Carruntuohill, located in Kerry County, rising to a height of 3,415 feet.

The principal river is the Shannon, which begins in the north central area, flows south and southwest for about 240 miles and empties into the Atlantic. About 20 per cent of the country is covered by bogs. Among the many lakes are the famous Lakes of Killarney in the south-west county of Kerry.

Ireland mines coal and gypsum.

Israel (Republic)

Area: 7,984 square miles.

Population (est. 1958): 1,997,000 (1953: Jewish, 81.9%; Moslem, 7.6%; Christian, 2.5%; others, 1.6%).

Density per square mile: 250.1.

President: Itzhak Ben-Zvi.

Premier: David Ben-Gurion.

Principal cities (est. Dec. 31, 1956): Tel Aviv-Jaffa, 371,000 (industrial center); Haifa, 160,000 (chief port); Jerusalem (Israeli sector), 149,440 (capital).

Monetary unit: Israeli pound (£I).

STATUS IN THE WORLD TODAY

Israel, friend of the West in the cold war, has been under military threat from its Arab neighbors ever since it achieved its independence in 1948. At first it was supported by the Soviet Union, but the Kremlin quickly decided that it was more worthwhile to win some measure of popular sympathy in the oil-producing Arab nations. In recent years it has consistently backed the Arab countries against Israel and, in response to Arab protests, has at times curtailed the flow of Jewish immigrants from behind the Iron Curtain to Israel.

Despite the constant threat of attack, which has meant devoting a considerable portion of the budget to defense, Israel has made tremendous strides economically while at the same time absorbing large numbers of Jewish refugees from all parts of the world. Completion of a pipe line from the Red Sea to the Mediterranean will ease its dependence on use of the Suez Canal, which is barred to it frequently by the hostile Egyptians despite efforts of the United Nations to keep the waterway open to commerce of all nations. The swift Israeli conquest of the Sinai Peninsula in

1956 enhanced its military position vis-à-vis Egypt and detracted somewhat from the prestige of the Nasser regime. A U.N. force still guards the frontier between Israel and Egypt along the Gaza strip, but border skirmishes take place occasionally on the Jordan and Syrian frontiers.

HISTORY. The history of Palestine, cradle of two of the great religions of the world, and homeland of the modern state of Israel, is mostly a chronicle of invasion, conquest, and confusing divisions. To the ancient Hebrews it was known as the "Land of Canaan"; the name Palestine is derived from that part of the country inhabited by the Philistines of Biblical times. About 1000 B.C. the Hebrews succeeded in establishing a single monarchy, which later split up into two kingdoms—Judah and Israel. The country was subsequently invaded and overcome by many peoples, including the Assyrians, Babylonians, Egyptians, Persians, Macedonians, Romans, and Byzantines. In A.D. 634-36, Palestine was wrested from the Byzantine Empire by the Arabs. Frankish Crusaders captured Jerusalem in 1099 and set up a feudal kingdom which endured until the defeat of the Franks by Saladin (1187) and the restoration of Moslem rule. In 1516 suzerainty over the area was transferred from the Mamelukes of Egypt to the Turks. It remained part of the Ottoman Empire until World War I, when British forces under General Allenby defeated the Turks and captured Jerusalem (Dec. 9, 1917). The League of Nations mandate awarded to Great Britain was put in force on Sept. 29, 1923.

Meanwhile, a movement had been founded in 1897 by Theodor Herzl to create a Jewish homeland in Palestine, and a considerable number of Jewish immigrants had entered the country prior to World War I. On Nov. 2, 1917, British recognition was given both to the growing Arab nationalist movement and to Zionist aspirations by the Balfour Declaration.

A British royal commission report July 7, 1937, recommended partition of Palestine into an Arab and a Jewish state separated by a mandated area in the vicinity of Jerusalem and at Nazareth. The Arabs opposed the proposal, advocating instead the establishment of an independent Palestine with full minority rights for the Jews. In May, 1939, the British government issued a White Paper declaring the establishment of a Jewish state contrary to British obligations to the Arabs and promising, after a transitory period of ten years, the establishment of an independent Palestine in which Arabs and Jews would share authority in government.

During the next five years, 75,000 Jews were to be allowed to enter Palestine. These proposals did not satisfy either party, but the outbreak of World War II overshadowed all other issues.

End of European hostilities in 1945 brought a renewal of friction and the formation of the Arab League. Attempts to bring Jewish immigrants into Palestine illegally were intensified thereafter, and terrorism grew apace.

Termination of the British mandate May 14, 1948, and withdrawal of British forces brought new violence. An independent state of Israel was immediately proclaimed by the Jewish National Council, and Arab forces converged on Palestine from the south, north, and east, spearheaded by the crack British-trained Arab Legion of King Abdullah of Jordan. Within a few hours Arab-Jewish hostilities were in full swing. On June 11, however, there went into effect a four-week truce supervised by Count Folke Bernadotte, Swedish U. N. mediator in Palestine. Fighting resumed on July 9, with Israeli forces gaining on all fronts except in Jerusalem, part of which had been taken by Jordanian troops prior to the truce. On July 17 a second truce was effected on order of the U. N. Security Council. Bernadotte was assassinated on Sept. 17 by unidentified Jewish terrorists and his duties were taken over by Dr. Ralph Bunche of the United States. A final cease-fire took effect on Jan. 7, 1949, and an armistice agreement was concluded with Egypt on Feb. 24 and with Jordan on April 3.

During the hostilities Israel lost none of the territory allotted to it under the partition plan and increased that territory by about 50% by gaining western Galilee, a broad corridor to Jerusalem through central Palestine and part of modern Jerusalem. In April, 1950, Jordan incorporated eastern and central Palestine, including the Old City of Jerusalem.

Israel's governmental structure took shape rapidly. The provisional leaders, Chaim Weizmann and David Ben-Gurion, were confirmed as President and Premier, respectively. Recognized by most non-Arab countries, the new nation was admitted to the U. N. on May 11, 1949.

Despite many Cabinet crises, Ben-Gurion's government met with increasing success the problems arising out of an unfavorable trade balance, large numbers of immigrants and need for foreign capital investment and additional industries.

Dr. Weizmann died Nov. 9, 1952, and Itzhak Ben-Zvi was elected to succeed him as President on Dec. 8.

Israeli troops invaded Egypt on Oct. 29, 1956, and quickly took the Gaza strip and almost all the Sinai peninsula up to the

Suez canal. Following U. N. intervention they were gradually withdrawn.

GOVERNMENT. The Israeli Constitution adopted by the Constituent Assembly in 1949 provides a republican form of government headed by a President elected for a 5-year term by the Knesset (Chamber of Deputies). Legislative power is vested in the Knesset, whose 120 members are elected by the vote of all citizens who have reached the age of 21. The government is administered by the Cabinet, which is headed by the Premier and is responsible to the Chamber of Deputies.

The Knesset decided in June, 1950, that Israel would not have a formal written constitution but would acquire one gradually through the years. Israel is basically committed to the admission of every Jew who desires to settle within its borders, subject to control of the Knesset.

ECONOMIC CONDITIONS. Agriculture is the chief economic activity. The maritime plain, the plain of Esdraelon and the northern Jordan valley are the principal agricultural areas. Citrus growing, confined largely to the maritime plain, normally furnishes the major export crop. Others include olives, rice, fruits and vegetables, figs, tobacco, wheat, barley, corn, sesame, and potatoes. There are many collective rural settlements.

Industry is developing rapidly, especially the food-processing, textile, metalworking, and chemical groups. Diamond cutting, although dependent on rough diamond imports, is of major importance; and there are oil refineries and storage tanks at Haifa, a terminus of the pipeline from the Iraqi oil fields (suspended since 1948).

Chief exports in 1957 were citrus fruits (36%) and polished diamonds (23%). Leading customers were Britain (21%) and the United States and Canada (16%); leading suppliers, the United States and Canada (29%), EPU countries (32%), and Britain (10%). Leading imports were wheat (7%), rough diamonds (6%), and iron and steel bars (3%).

NATURAL FEATURES AND RESOURCES. Northern Israel is largely a plateau traversed from north to south by mountains and broken by great depressions, also running from north to south.

The maritime plain of Israel is remarkably fertile, but the southern Negeb region, which comprises almost half the total area, is largely a wide desert steppe area. The Jordan, the only important river, rises in Syria and flows along the Jordan border through the Hule marshes and lake and the Sea of Tiberias (Galilee) into Jordanian Palestine and thence into the Dead Sea, 1,290 feet below sea level.

Mineral resources are limited. They in-

clude gypsum, sulfur, limestone, and rock salt, together with potash and bromine from the Dead Sea.

Italy (Republic)

(Repubblica Italiana)

Area: 116,316 square miles.

Population (est. 1958): 48,635,000 (predominantly Italian).

Density per square mile: 418.1.

President: Giovanni Gronchi.

Premier: Antonio Segni.

Principal cities (est. 1956): Rome, 1,829,406 (capital); Milan, 1,355,410 (leading financial, industrial center); Naples, 1,096,755 (seaport); Turin, 853,179 (auto works); Genoa, 727,012 (seaport); Palermo, 557,468 (Sicilian seaport).

Monetary unit: Lira.

Religions: Roman Catholic, 99.6%; others (Protestant, Orthodox, Jewish), .4%.

STATUS IN THE WORLD TODAY

The postwar Republic of Italy has been firmly pro-Western in the cold war and is a member of NATO. It has followed this policy despite a strong and persistent Communist opposition, although the majority of Italian Communists, with the exception of the leaders, reject the dominance of Moscow and regard their vote as a reaction against fascism and a short cut to economic betterment. In foreign affairs Italy has also tried to mediate between the Western and Arab powers, since it is no longer a colonial power, and has made considerable progress in obtaining oil concessions in the Middle East.

Western nations have helped Italy recover from the gravest sort of economic problems resulting from heavy damage in World War II. Under the Marshall Plan and ECA, Italy received \$1.8 billion, while the United States paid most of the \$450 million allocated by UNRRA for food relief and gave Italy twenty-nine ships. As a result of this pump-priming, Italian agricultural and industrial production increased. But despite the remarkable progress in vitalizing economic life, only a beginning has been made. Agricultural production is still unable to meet the demands of the Italian people. Land reform, especially turning over large estates to the peasants, has been painfully slow. Energetic efforts are being made to close the gap between exports and imports, and there are still some 2,000,000 unemployed in a working population of 21,000,000.

HISTORY AND GOVERNMENT: Until A.D. 476, when the German Odoacer became head of the Roman Empire in the west, the

history of Italy was largely the history of Rome. From A.D. 800 on, the Holy Roman Emperors, the Popes, Normans and Saracens all vied for control over various segments of the Italian peninsula. Numerous city states, such as Venice and Genoa, and many small principalities flourished in the late Middle Ages.

In 1713, after the War of the Spanish Succession, Milan, Naples, and Sardinia were handed over to Austria, but the Hapsburg influence on the peninsula was interrupted for a short time after 1800 when Italy was unified by Napoleon, who crowned himself King of Italy on May 26, 1805. After the Congress of Vienna in 1815, Austria continued to be the dominant power in Italy.

Recent Italian experience seems to be an extension of a troubled history. In 1815 the Congress of Vienna restored the Italies to their former position of confused disunity, like the Germanies a "geographical expression." The tyranny of the Restoration met with opposition by the *Carbonari* (charcoal burners), a secret society which demanded constitutional government and national unification. But Austrian armies crushed Italian uprisings in 1820, 1821, and 1831. In the 1830's Joseph Mazzini (1805-1872), brilliant liberal nationalist, organized the *Risorgimento* (Resurrection), which laid the foundation for Italian unity.

Disappointed Italian patriots looked to Sardinia for leadership. Count Camille di Cavour (1810-1861), Prime Minister of Sardinia in 1852 and the architect of United Italy, joined England and France in the Crimean War (1853-1856), and in 1859 helped France in a war against Austria, thereby obtaining Lombardy. By plebiscite in 1860, Modena, Parma, Tuscany, and the Romagna voted to join Sardinia. In 1860, Giuseppe Garibaldi (1807-1882) conquered Sicily and Naples and turned them over to Sardinia. Victor Emmanuel II, King of Sardinia, was proclaimed King of Italy on March 17, 1861.

Allied with Germany and Austria-Hungary in the Triple Alliance of 1882, Italy declared her neutrality upon the outbreak of World War I on the ground that Germany had embarked upon an offensive war. In 1915 Italy entered the war on the side of the Allies.

Benito Mussolini (1883-1945), a former Socialist, organized discontented Italians in 1919 into the Fascist Party "to rescue Italy from Bolshevism." After winning the battle of the streets against the Communists, the Black Shirts marched on Rome on October 27, 1922. Mussolini was made Premier. The price of Fascist victory was the breakdown of parliamentary government. Mussolini destroyed Parliament, sus-

pended civil rights, wiped out political opposition, and transformed Italy into a dictatorship. He gave his people everything but freedom. His basic slogan—"Believe, Obey, Fight."

Mussolini's foreign policy was expansionist, designed to make the Mediterranean an Italian lake (*Mare Nostrum*). His designs on Corsica, Savoy, Nice, and Tunis enraged the French. In 1935 his troops invaded Ethiopia (Abyssinia) and annexed it despite stubborn resistance. In 1936 he aligned himself with Hitler in the Rome-Berlin Axis. Italian troops fought for Franco in the Spanish Civil War of 1936-1939. After the defeat of France in 1940, Mussolini joined Nazi Germany in World War II. The myth of Italian military strength was broken on the sands of Libya by British tanks and in Albania by Greek bayonets. The Italian dictator was caught and executed by partisans at Dongo on Lake Como on April 28, 1945.

Following the overthrow of Mussolini's dictatorship and the armistice with the Allies (September 3, 1943), Italy joined the war against Germany as a co-belligerent. In May, 1946, King Victor Emmanuel III left the country after installing his son as King Humbert II. But a provisional coalition government held a popular plebiscite in June, 1946, as a result of which the Italians voted for a republic. King Humbert abdicated and followed his father into exile.

The President is elected for a term of seven years by Parliament in joint session with regional representatives. The President nominates the Cabinet, which is headed by the Premier, or Prime Minister. Parliament is composed of two houses: a Senate with 246 elective Senators and Deputies, of 590 members elected by the people for a five-year term. All Italian citizens, including women over 21, are duty-bound to vote.

PEACE TREATY OF 1947. The peace treaty which took effect Sept. 15, 1947, required Italian renunciation of all claims in Ethiopia and Greece, and the cession of the Dodecanese to Greece and of five small Alpine areas to France. In addition, the major part of the Istrian peninsula, including Flume and Pola, went to Yugoslavia. The Free Territory of Trieste was carved out of the area to the west of the new Yugoslav frontier.

Italy was to pay reparations of \$100,000,000 in kind over a seven-year period to the Soviet Union, \$125,000,000 to Yugoslavia, \$105,000,000 to Greece, \$25,000,000 to Ethiopia and \$5,000,000 to Albania; also to make two-thirds restitution for war-time damage to Allied property in Italy.

Zone A of Trieste (90 sq. mi.), including the city of Trieste, was transferred to

Italy in Oct., 1954, and the remainder to Yugoslavia.

RELIGION. Although the country is predominantly Roman Catholic, religious freedom is permitted. Catholic religious teaching is given in all elementary and intermediate schools. Relations with the Church are regulated by the treaty with the Holy See of Feb. 11, 1929, which established the temporal power of the Pope over Vatican City.

ECONOMIC CONDITIONS.

Agriculture. Agriculture engages more than a third of the population. It is extremely diversified; differences of altitude, soil, and climate allow the production of all European crops from rye to rice, from apples to oranges, and from hemp to cotton. Italy ranks next to France in wine production, and next to Spain in olive oil production.

Livestock and dairy farming are important in Italy. Of the 50-odd varieties of Italian cheese, the best known are the hard parmesan and pecorino (the latter made from ewe's milk) and the soft bel paese and gorgonzola. In 1957 Italy had 8,440,000 cattle, 8,572,000 sheep, and 3,863,000 hogs.

Industry. Industrial production is centered in the north. The nature of the fascist corporate state had a tendency to foster industrial concentration prior to World War II. The textile industry is the largest and most important and supplies the home market as well as furnishing a large proportion of Italy's exports. The metal industries are handicapped by lack of coal, which must be imported in large quantities, and by insufficient iron ore reserves. The chemical, clothing and food industries are also important. Italy is a member of the European Coal and Steel Community.

Production includes cotton yarn, woven cotton fabrics, rayon yarn, pig iron and ferroalloys, raw steel, cement, automobiles and trucks.

Trade. Italy's leading customers by value in 1957 were EPU countries (45%) and the U. S. and Canada (10%). Main suppliers were EPU countries (35%), the U. S. and Canada (20%), Britain (5%), and Iraq (5%). Leading exports were machinery and vehicles, fruits and vegetables, synthetic fibers and manufactures and cotton and manufactures. Leading imports included cotton, coal and coke, wool, grain, and petroleum and products.

NATURAL FEATURES AND RESOURCES. Approximately 600 of boot-shaped Italy's 708 miles of length are in the long peninsula that projects into the Mediterranean from the fertile basin of the Po River. The Apennines, branching off from the Alps between Nice and Genoa, form the peninsula's backbone, and rise to a maximum height of 9,560 feet at the Gran Sasso

d'Italia (Corno). The Alps are Italy's northern boundary.

Several islands form part of Italy. Sicily, 9,926 square miles, lies off the toe of the boot, across the Strait of Messina, with a steep and rock-bound northern coast and gentler slopes to the sea in the west and south. Mt. Etna, an active volcano, rises to 10,741 feet, and most of Sicily is more than 500 feet in elevation. Sixty-two miles southwest of Sicily lies Pantelleria, 45 square miles, and south of that are Lampedusa and Linosa. Sardinia, 9,301 square miles, just south of Corsica and about 125 miles west of the mainland, is mountainous, stony, and unproductive.

Italy has many northern lakes, lying below the snow-covered peaks of the Alps. The largest are Garda (143 sq. mi.), Maggiora (83 sq. mi.), and Como (55 sq. mi.). The Po, the principal river, flows from the Alps on Italy's western border and crosses the Lombard plain to the Adriatic.

Natural Resources. Italy is ordinarily the world's largest producer of mercury; it is also an important producer of sulfur. The nation lacks, however, the staple minerals of coal, oil and iron, and is forced to import them.

In the south Tirol and in the central Apennines, abundant hydroelectric power resources and deposits of natural gas are being increasingly exploited.

Japan (Empire)

(Nippon)

Area: 142,801 square miles.

Population (est. 1958): 91,760,000.

Density per square mile: 642.6.

Ruler: Emperor Hirohito.

Premier: Nobusuke Kishi.

Principal cities (census 1955): Tokyo, 6,969,104* (capital; financial, manufacturing center); Osaka, 2,547,316 (chief industrial center); Nagoya, 1,336,780 (machinery, textiles); Kyoto, 1,204,084 (manufacturing); Yokohama, 1,143,687 (seaport); Kobe, 979,305 (seaport, ship-building).

Monetary unit: Yen.

Language: Japanese.

Religions (1938): Buddhism, 60%; Shin-tôism, 21%; Protestant (215,166); Roman Catholic (118,856).

* Estimated Aug. 1, 1959: 9,100,539.

STATUS IN THE WORLD TODAY

Japan, which has been transformed into a pacific democracy under civilian leadership, has aligned itself with the Free World, and more particularly, with the United States. In March, 1954, the two countries concluded a Mutual Defense Assistance Agreement. Outside the military sphere, the United States has done its best to expand its trade and cultural ties with

Japan, to encourage its allies to accept Japan as a partner, and to persuade the world community to recognize Japan again as a responsible and important member. The policy of the present government is one of economic expansion under close government supervision, reassessment of Occupation reforms and eventual revision of the constitution, gradual rearmament, and inter-dependence with the United States.

Serious international problems still plague Japan. The peace declaration of 1956 with the Soviet Union did not settle all issues with the U.S.S.R. The question of what kind of relations to develop with the other states of the Soviet bloc, particularly mainland China, is pressing. Korean claims and sensibilities still have to be pacified. Military relations with the United States require constant attention, as do trade relations with all countries. But Japan has been making satisfying progress in its international relations, and without the expense of supporting a large military establishment.

Increased imports are essential to Japan's economic growth, for the islands are small and poorly endowed. The key problem is how to secure the foreign exchange needed to pay for them. Japan is making every effort to expand its markets in the West, but on several occasions has taken the extraordinary step of itself limiting its exports to avoid a raising of the barriers in the United States. Two other major markets beckon—south and southeast Asia and mainland China. In the former case, there are three obstacles: distrust of Japanese motives engendered before and during World War II, shortage of capital, and competition from West Germany, Britain, and others. In the latter case, the Japanese government has enforced a partial boycott in accord with the policy enunciated by America during the Korean War, while the Red Chinese government has adopted restrictive policies in attempting to use the promise of this trade to force the Tokyo regime to recognize it diplomatically. Limited trade continues on an individual barter basis. Increased attention is being given in Japanese financial circles to the need for Japan itself to provide more capital for the development of the south and southeast Asia region.

HISTORY AND GOVERNMENT. A series of legends attributes creation of Japan to the sun goddess, from whom the later emperors were allegedly descended. The first of them was Jimmu Tennō, supposed to have ascended the throne on Feb. 11, 660 B.C.

Recorded Japanese history begins with the first contact with China in the 5th

century A.D. Japan was then divided into strong feudal states, all nominally under the Emperor, but with real power often held by a court minister or clan. In 1185 Yoritomo, chief of the Minamoto clan, was designated Shogun (Generalissimo) with the actual administration of the islands under his control. A dual government system—Shogun and Emperor—persisted till 1867.

First contact with the West came about 1542, when a Portuguese ship off course arrived in Japanese waters. Portuguese traders, Jesuit missionaries, and Spanish, Dutch, and English traders followed. Suspicious of Christianity and of Portuguese support of a local Japanese revolt, the shoguns restricted all foreigners in 1636-38 except the Dutch, who were confined to Nagasaki. Western attempts to renew trading relations failed until 1853, when Commodore Matthew Perry sailed an American fleet into Tokyo Bay.

Japan now quickly made the transition from a medieval to a modern power. Feudalism was abolished and industrialization was speeded. An imperial army was established with conscription. The shogun system was abolished in 1867 by Emperor Meiji, and parliamentary government was established in 1889. After a brief war with China in 1894-95, Japan acquired Formosa (Taiwan), the Pescadores islands, and part of southern Manchuria. China also recognized the independence of Korea (Chosen), which Japan later annexed (1910).

In 1904-05 Japan defeated Russia in the Russo-Japanese War, gaining the territory of southern Sakhalin (Karafuto) and Russia's port and rail rights in Manchuria. In World War I, Japan, which took a negligible part in military operations, seized Germany's Pacific islands and leased areas in China. The Treaty of Versailles then awarded her a mandate over the islands.

At the Washington Conference of 1921-22, Japan agreed to respect Chinese national integrity. The series of Japanese aggressions which was to lead to the nation's downfall began in 1931 with the invasion of Manchuria. The following year, Japan set up this area as a puppet state, "Manchukuo," under Emperor Henry Pu-Yi, last of China's Manchu dynasty. On Nov. 25, 1936, Japan joined the Axis by signing the anti-Comintern pact. The invasion of China came the next year, and the Pearl Harbor attack on Dec. 7, 1941.

For many months after Pearl Harbor, the Japanese army and navy enjoyed spectacular success, but by the end of 1942 the tide had begun to turn. Three years later the dropping of the world's first atomic bomb in combat on Hiroshima, followed by a second one on Nagasaki, knocked Japan swiftly into surrender.

The formal surrender took place Sept. 2, 1945, aboard the battleship *Missouri* in Tokyo Bay. Southern Sakhalin and the Kurile Islands reverted to Russia, and Formosa (Taiwan) and Manchuria to China. The Pacific islands remained under U. S. occupation.

General of the Army Douglas MacArthur was appointed Supreme Commander for the Allied Powers (SCAP) Aug. 14, 1945. An 11-power (later 13-power) Far Eastern Commission was created to lay down occupation policies, while the 4-power Allied council advised and consulted with SCAP in carrying them out.

Japan's Constitution, promulgated in November, 1946, replaced the Meiji Constitution of 1889. The new Constitution, sponsored by the U. S. during its occupation of Japan, brought fundamental changes to the Japanese political system, including the abandonment of the Emperor's divine rights. The Diet (Parliament) consists of a House of Representatives of 467 members elected for 4 years and a House of Councillors of 250 members, half of whom are elected every 3 years for 6-year terms. Executive power is vested in the cabinet headed by a Prime Minister, who is elected by the Diet from its members.

Ruler. Emperor Hirohito, born April 29, 1901, succeeded his father, Yoshihito, on Dec. 25, 1926. He was married on Jan. 26, 1924, to Princess Nagako, born in 1903. To them were born two sons, Crown Prince Akihito (Dec. 23, 1933) and Prince Masahito (Nov. 28, 1935), and 5 daughters. Succession to the Japanese throne is in the male line only.

ECONOMIC CONDITIONS.

Agriculture. Japan is traditionally a land of small farms and, except in Hokkaido, the northernmost island, there is almost no large-scale farming and animal husbandry. The average holding is less than three acres. Double cropping makes self-sufficiency possible, but on a low level of subsistence.

In 1956 there were 3,202,000 cattle, 1,160,000 hogs, and 893,000 sheep.

Industry. Prewar Japan was one of the world's leading industrial nations and the only country in the Far East with highly developed textile, steel, machinery, chemical, and electrical industries. The textile industry was dominant, but after 1931 considerable expansion took place in the heavy industries—metal, machinery-building, and chemical—which were adaptable to war purposes.

Postwar industrial rehabilitation proceeded slowly at first, but by the end of 1956 average industrial output was more than twice the 1934-36 level. Japan led the world in shipbuilding in 1956, complet-

ing vessels aggregating 1,538,000 gross tons, many of them super tankers.

The huge interlocking monopolies (*Zai-batsu*), controlling prewar business and finance, were dissolved in 1945, and reconcentration was prohibited by postwar legislation.

Trade. Before World War II, Japan ranked fifth in world trade. Private trade was resumed in 1947; by the mid-1950s, Japan had regained its place in world trade.

Leading customers in 1956 were the United States (22%), Hong Kong (5%), India (4%), and Malaya (3%); leading suppliers, the United States (33%), Australia (8%), Canada (4%), and Malaya (4%). Leading exports were textiles (35%), machinery (19%), iron and steel and manufactures (9%), and chemicals (4%). Imports included raw cotton (15%), petroleum and products (10%), wool (7%), wheat (5%), and iron ore (5%).

Communications. Before World War II the merchant marine carried almost 80 per cent of the foreign trade and was surpassed only by those of the United States and Britain. Wartime losses were enormous, but recovery was fairly steady. By June 30, 1956, there were 1,891 vessels (100 tons and over) with a gross tonnage of 4,075,481, according to *Lloyd's Register*.

NATURAL FEATURES AND RESOURCES. Japan's four main islands are Honshu, Hokkaido, Kyushu, and Shikoku. The Ryukyu chain to the southwest is U. S.-occupied and the Kuriles to the northeast are Russian-occupied. The surface of the main islands consists largely of mountains separated by narrow valleys. There are about fifty more or less active volcanoes, including famous Fujiyama near Tokyo (12,385 ft.).

Minerals. Japan is relatively poor in minerals, and large imports of coal, petroleum, and iron ore are necessary. Other minerals include lead, silver, gold, and copper.

Jordan (Hashemite Kingdom of)

Area: 37,264 square miles.*

Population (est. 1957): 1,527,000.*

Density per square mile: 44.0.*

Ruler: King Hussein I.

Prime Minister: Hazza Majali.

Principal cities (est. 1957): Amman, 185,032 (capital); Jerusalem (Jordanian sector), 75,000 (religious center).

Monetary unit: Jordanian dinar.

Language: Arabic.

Religions: Moslem (Sunni), 92%; Christian, 8%.

* Including Arab Palestine (area: 2,125 sq. ml.; population 1953, 745,786).

STATUS IN THE WORLD TODAY

Jordan, although a cobelligerent with Egypt against Israel, has lately remained aloof from the movement for pan-Arabism because of attempts to undermine its independence and to overthrow King Hussein. These plots were blamed in Amman on Egyptian and Syrian elements in the United Arab Republic, and the Cairo radio retaliated for a considerable period of time with propaganda broadcasts urging the overthrow of King Hussein. At the time of the 1958 rebellion in Iraq, British paratroopers arrived to help safeguard Jordan's independence at the same time that United States Marines landed in Lebanon to help prevent the spread of violence in the Middle East. Since that time, the U.A.R. has appeared to be more preoccupied with the Communist threat posed by the new Baghdad regime.

Jordan has a considerable agricultural potential if it could come to an agreement with Israel on the use of the waters of the Jordan River. But it is still technically at war with Israel, and has incorporated part of Jerusalem into its territory. Egypt also still has to live up to its agreement to share in furnishing the economic aid to Jordan which it lost when the British withdrew.

HISTORY AND GOVERNMENT. An ancient land, Jordan was known in the time of Moses as Edom and Moab. It passed to the Amorites of Damascus and in A.D. 106 became part of the Roman province of Arabia. In 633-36 it was conquered by the Arabs.

Conquered from the Turks by the British in World War I, Jordan was separated from the Palestine mandate in 1920, and placed in 1921 under the rule of Abdullah ibn Hussein.

In 1923 Britain recognized Jordan's independence, subject to the mandate. In 1946, Britain abolished the mandate and recognized the independence of Jordan. That part of Palestine occupied by Jordanian troops was formally incorporated by action of the Jordanian Parliament on Apr. 24, 1950. Jordan's rejection of the Baghdad pact in Dec., 1955, set off a period of instability and tension.

Abdullah was assassinated June 20, 1951. His son Talal was deposed as mentally ill Aug. 11, 1952. Talal's son Hussein, born May 2, 1935, succeeded him. Jordan is a constitutional monarchy with a bicameral parliament. Its Chamber of Deputies of 40 members is elected for 4 years by male suffrage and the 20 members of the Senate are appointed by the King.

Defense of the country is entrusted to the British-trained Arab Legion of about

20,000 men, the most effective force among all Arab armies. The Anglo-Jordanian treaty of Mar. 20, 1948, was terminated Mar. 13, 1957. Jordan had ousted the Legion's British commander on March 2, 1956, and Britain recalled most of its remaining military officers. In Jan. 1957 Egypt, Saudi Arabia, and Syria agreed to provide the equivalent of the former British defense subsidy. In February, 1958, Jordan and Iraq united to form the "Arab Federation," subsequently called the "Arab Union," but this federation came abruptly to an end with the revolutionary coup in Iraq in August, 1958.

ECONOMIC CONDITIONS. Life in Jordan is primitive; they are estimated to be 50,000 nomads and 120,000 seminomads. At least 95% of the total area is desert.

Most of the country is suitable only for pasturing sheep, goats, and camels. Cultivated land is limited to a relatively small area west of the Hejaz Railway. In the drier cultivated areas of the plateau, the inhabitants retain tribal organization and still live in tents. Foreign trade is limited to the exchange of wheat, fresh fruit, wool, and live animals for sugar, tea, and other necessities.

Korea (Chosen; Chosŏn)

Area: 85,266 square miles.

Population (est. 1957): 30,500,000, almost entirely Korean).

Density per square mile: 357.7.

President, South Korea: Syngman Rhee.

Premier, North Korea: Kim Il-sung.

Principal cities (census 1955): Seoul, 1,574,868 (capital, south Korea); Pusan, 1,049,363 (chief port); (est. 1952) Pyongyang, 500,000 (capital, north Korea); (census 1955) Taegu, 488,960 (silk center).

Monetary unit: Hwan.

Languages: Korean, Chinese, Japanese.

Religions: Buddhist, Confucianist, Taoist, Christian (500,300 Christians in 1938).

STATUS IN THE WORLD TODAY

North Korea became a Communist satellite as the result of a military agreement which permitted Soviet Russia to accept the Japanese surrender north of the 38th parallel in Korea. Soviet forces occupied the northern zone, established a puppet government, and although an agreement was reached in Moscow in 1945 to establish a joint commission to unify the two zones under a provisional Korean government, supervised by a four-power trusteeship, there was no agreement on how this could be done. Since the Korean War, the country has been to all intents and purposes an appendage of Red China, and the ruling officials apparently have been building up the Communist military strength despite the provisions of the 1953 armis-

tice agreement. In the spring of 1958 the Red Chinese announced that they had begun to move their "volunteers" out of North Korea and that they would complete their withdrawal by the end of the year. It may be that the North Korean forces have been so strengthened that they are considered now capable of defending or extending the regime themselves. This may have been the reason for Chou En-lai's call for all foreign troops to be evacuated from the peninsula as preliminary to an all-Korean election to establish a new, unified government. Intelligible military and economic data are lacking, but the Communist regime is reported to have received aid from eight of the Communist bloc nations, the largest grants coming from the U.S.S.R. and Red China.

The Republic of Korea was strongly pro-democratic and anti-Communist even before the Communist invasion from North Korea and has been a staunch supporter of the Free World since its organization in 1948. Its struggle to build a free and independent country has met with staggering economic problems as a result of the civil war. Relief and reconstruction have gone forward, with nearly \$2 billion in relief and aid having been given since 1950 by the United States and the United Nations. Even this has been insufficient, however; production has increased little beyond the 1949-50 level and has hardly kept pace with the growth in population. Trade has been encouraged, but the traditional exchange with Japan has not been restored and relations between the two countries are further complicated by a fisheries dispute. Because of the military build-up believed to have taken place in North Korea, the ROK has felt it imperative to maintain comparatively large military forces. These have been strengthened since June, 1957, when the U.N. command announced that breaches of the armistice agreement by the opposing side freed it to equip its own men with more modern weapons.

HISTORY. According to myth, Korea, a peninsula about 600 miles long, was founded in 2,333 B.C. by Tangun. His dynasty is said to have ruled until 1122 B.C. when a Chinese sage, Kija, established a dynasty supposed to have ruled until 193 B.C. Later, three kingdoms were established, one of which (Silla) absorbed the other two in 668-668 A.D. In 1627, the Manchus seized Korea and placed it again under Chinese sovereignty.

In the Chinese-Japanese War of 1894-95, Japan won predominant influence in Korea, and in 1910 Japan formally annexed it. A Korean bid for independence was crushed ruthlessly in 1919.

In Aug., 1945, at the end of World War II, Korea was occupied by Soviet and U. S. troops. The United States and the U.S.S.R. were unable to agree on the formation of an all-Korean provisional government, and in Nov., 1947 the U. N. General Assembly set up a commission, boycotted by the U.S.S.R., to arrange for elections. Elections were held in the U. S. zone on May 10, 1948, for a national assembly, which on July 12 adopted a republican Constitution and on July 20 elected Syngman Rhee President. The new republic was proclaimed on Aug. 15 and was recognized as the legal government of Korea by the U. N. General Assembly, on Dec. 12, 1948. Meanwhile, a North Korean "People's Republic" had been formed in the Soviet zone north of the 38th parallel on May 1, 1948. It claimed jurisdiction over all of Korea.

On June 25, 1950, South Korea was attacked by North Korean Communist forces. U. S. armed intervention was ordered on June 27 by Pres. Truman and on the same day the U. N. invoked military sanctions against North Korea. Gen. Douglas MacArthur was named commander of U. N. forces on July 7. U. S. and South Korean troops fought a heroic holding action, but by the first week of August, they had been forced back to a 4,000 sq. mi. beachhead in southeast Korea. There they stood off superior North Korean forces until Sept. 15, when a major U. N. amphibious attack was launched far behind the Communist lines at Inchon, port of Seoul. By Sept. 30, U. N. forces were in complete control of South Korea; they then invaded North Korea and were nearing the Manchurian and Siberian borders when several hundred thousand Chinese Communist troops entered the conflict in late October. U. N. forces then retreated successfully below the 38th parallel, where they repulsed several major attacks.

On May 24, 1951, U. N. forces recrossed the parallel and had made important new inroads into North Korea when truce negotiations began on July 10. An armistice was finally signed at Panmunjom on July 27, 1953, leaving a devastated Korea in need of large-scale rehabilitation. The armistice contemplated an international political conference on the status of Korea, but negotiations for arranging it broke down. The question was discussed without result at the Geneva conference on Far Eastern problems (April 28-June 19, 1954).

The U. S. and South Korea signed a mutual defense treaty on Oct. 1, 1953, and in Aug. 1953 the U. S. Congress authorized up to \$200,000,000 for rehabilitation and economic support of South Korea.

ECONOMIC CONDITIONS. The Korean population is more or less homogeneous and successfully withstood Japanese efforts to assimilate it. South Korea has 43% of

the peninsula's area and over two-thirds of its population. Korea is predominantly agricultural.

Industrial development was speeded in the last years of Japanese rule. The leading industries by value of output ordinarily are chemical, textile, food, beverage, and tobacco. Korea north of the 38th parallel has by far the larger portion of the country's industry and abundant hydroelectric resources.

Korea's prewar foreign trade was closely linked with that of Japan. South Korea's postwar trade has been financed to a large extent by U. S. funds. Most of the trade is with the United States, Japan, and Hong Kong. Chief imports were foods and manufactured goods; chief exports, raw materials, including tungsten, graphite, and raw silk. North Korea's trade is chiefly with Communist China and the U.S.S.R.

South Korea is insolvent and dependent on U. S. and other contributions.

NATURAL FEATURES AND RESOURCES.

Korea's coast, with a rugged mountain range along the east, is fringed with more than a thousand islands. Several rivers are navigable for more than a hundred miles, including the Nakdong in the south, the Han in the central region, and the Yalu in the northwest.

Leading products are coal, gold, silver, copper, tungsten ore, iron ore, graphite, lead, alum stone, and pyrite ore.

Laos (Kingdom)

Area: 91,506 square miles.

Population (est. 1957): 1,655,000.

Density per square mile: 16.9.

Ruler: King Sisavang Vong.

Regent: Crown Prince Savang Vathana.

Premier: Phoul Sananikone.

Principal cities (est. 1953): Vientiane, 20,000 (administrative capital); Luangprabang, 15,000 (royal capital).

Monetary unit: Kip.

Language: Laotian.

Religion: Buddhist.

STATUS IN THE WORLD TODAY

Laos, a former province of French Indo-China which the Communists expected to take over without any trouble, has managed to maintain its independence with the help of American military and financial aid. In a move representing a defeat for both the pro-Communists and the pro-neutralists, the National Assembly in January, 1959, gave the regime of Premier Phoul Sananikone the power to govern the country for one year without reference to the legislature. During this period the government hopes to suppress Communist subversion and to carry out social and

economic reforms. The Communists in the northern provinces have been supported from northern Vietnam and there have been a number of frontier incidents along the 800-mile frontier which Laos shares with that Communist satellite and Red China. The difficulty of patrolling this long border has also resulted in making Laos a haven for thousands of refugees from Red China.

Economically the least developed former unit of Indo-China, Laos is sparsely populated and has just begun to modernize its backward economy. It has no railroads and few passable roads. It has been receiving between \$30 and \$40 million annually in American aid. Whatever the truth of charges of inept and unimaginative American administration and widespread corruption on the part of Laotian officials, the program does appear to have averted Communist threats to take over the country, although it may not, to date, have greatly speeded up the process of economic growth.

Renewed attacks by Communists in August, 1959, allegedly supported by forces from North Vietnam, brought a plea in the U.N. from Laos for intervention against invasion. In September, the Security Council voted to send a fact-finding commission.

HISTORY AND GOVERNMENT. Sparsely settled Laos occupies the northwestern portion of Indo-China. In the fourteenth century, a unified Lao kingdom of Lanxang was constituted on both sides of the Mékong river. It was divided in the seventeenth century into the two kingdoms of Vientiane, which was annexed by Siam in 1827, and Luangprabang, which recognized Siamese suzerainty shortly thereafter. In 1893 both kingdoms passed to France.

Laos was reunited in 1947 as a constitutional monarchy under the Luangprabang dynasty. In 1950 it became an associated state in the French Union. The transfer of sovereignty was completed by the Paris agreements of Dec. 29, 1954. The constitution of May, 1947, provides for a National Legislative Assembly elected by popular vote. In 1958 women were granted the franchise and voting qualifications liberalized, thereby increasing the total number of Assembly seats from 38 to 59.

SOCIAL AND ECONOMIC CONDITIONS. About half the people are Laotians who live mainly in the Mékong valley, and half are mountain tribes of Chinese and Indonesian extraction. There are sizable Chinese and Vietnamese minorities.

About 95% of the people are farmers. The chief food crop is rice; others are maize, vegetables, cotton, cardamons, and tobacco. The leading exports are benzoin, coffee, opium, and lac; cattle and teak are also exported. Laos is the least developed

of the former Indo-Chinese states and has little modern industry. Tin is the only mineral of importance. The northern forests are rich in valuable timber, notably teak; the logs are floated down the Mékong. The latter, in spite of rapids, is the chief transportation route.

Latvia

Area: 24,595 square miles.

Population (est. 1956): 2,000,000 (1940: Lettish, 75.5% [1950: 58%]; Russian, 12%; German, 3.2%; Polish, 2.5%; others, 6.8%).

Density per square mile: 81.3.

Principal cities (est. 1956): Riga, 565,000 (capital); Liepaja, 80,000 (seaport).

Language: Latvian.

Religions (census 1930): Lutheran, 56.6%; Roman Catholic, 23.7%; Greek Orthodox, 8.9%; others, 10.8%.

HISTORY AND GOVERNMENT. Descended from Aryan stock, the Latvians were early tribesmen who settled along the Baltic Sea and, lacking a central government, fell an easy prey to more powerful peoples. The German Teutonic Knights first conquered them in 1158 and ruled the area as two states—Livonia and Courland. Poland conquered the territory in 1562 and ruled until 1795 in Courland; control of Livonia was disputed between Sweden and Poland from 1562 to 1629. Sweden controlled Livonia from 1629 to 1721. Russia took over Livonia in the latter year, and Courland after the third partition of Poland in 1795. From that time until 1918, the Latvians remained Russian subjects, although they preserved their language, customs, and folklore. The Russian Revolution of 1917 gave them their opportunity for freedom, and the Latvian republic was proclaimed on Nov. 18, 1918.

The republic lasted little more than twenty years. It was occupied by Russian troops in 1939 and incorporated into the U.S.S.R. in 1940. German armies occupied the nation from 1941 to 1943-44, when they were driven out by the Russians. Most countries, including the United States, have refused to recognize the Soviet annexation of Latvia.

Lebanon (Republic)

Area: 4,015 square miles.

Population (est. 1957): 1,525,000 (Arabian, Armenian, Circassian, Turk).

Density per square mile: 379.8.

President: Fouad Chehab.

Premier: Rashid Karami.

Principal cities (est. 1955): Beirut, 400,000 (capital, chief port); Tripoli, 80,000 (oil pipe-line terminus).

Monetary unit: Lebanese pound (£L).

Languages: Arabic, French.

Religions (est. 1954): Christian, 54%; Moslem, 44%; others, 2%.

STATUS IN THE WORLD TODAY

Since the 1958 insurrection, when Egypt was charged with intervention in Lebanon's internal affairs, and the landing of United States Marines—at Lebanon's request—during the uncertainty which followed the overthrow of the Hashemite monarchy in Iraq, this half-Christian, half-Moslem nation has moved closer to positive neutralism. It has, however, begun to deport Arab Communists, disarm the civilian population, and maintain strict neutrality between Nasser and Egypt, on the one hand, and Kassem and Iraq on the other. Its swift economic recovery following the civil strife was aided by \$12.5 million from the United States, and the Lebanese, who had made their nation the most prosperous in the Middle East, are rapidly resuming their former position. Relations with the U.A.R. have been normalized, with a pledge by Nasser in March, 1959, to respect Lebanon's independence, and the signing of an economic pact three months later.

HISTORY AND GOVERNMENT. In ancient times Lebanon was the mountainous hinterland of the Phoenician coast towns. From the seventh to the eleventh centuries there infiltrated into southern Lebanon the heretics of Islam who finally coalesced into the Druze community.

In the nineteenth century the Turkish Sultanate encouraged the Druses to wage civil war against the Christian Maronites. After a massacre of 2,500 Christians in 1860, Lebanon was occupied by the French for a year. From 1864 to 1914, a Christian military government ruled the area under nominal Turkish sovereignty. After World War I, France received a League of Nations mandate over Syria and Lebanon. The French drew a Lebanese border in 1920 to offset predominantly Moslem Syria and proclaimed the area a republic under French control on May 23, 1926. Complete independence came on Nov. 26, 1941. Lebanon joined the Arab League and took part in the invasion of Palestine on May 15, 1948.

GOVERNMENT. The modern Lebanese republic is governed by a President elected by Parliament, for a six-year term, and a Cabinet of Ministers appointed by the President, but responsible to Parliament, which has sixty-six members elected for a 4-year term by universal suffrage. Voting is compulsory.

ECONOMIC CONDITIONS. Lebanon produces tobacco, olives, grapes and other fruits, wheat, and silk. Manufacturing is confined mainly to local consumers' goods. The silk industry is important in Beirut and Tripoli. Tobacco manufacturing is a

government monopoly. An oil refinery was opened at Tripoli in 1950 and its facilities are being currently expanded.

Leading customers in 1957 were Saudi Arabia (13%), Syria (12%), and France (5%); leading suppliers, Syria (15%), Britain (18%), and the United States and Canada (12%). The leading exports were wool, fruits, vegetables, barley, and cotton.

One of the oil pipelines from the Kirkuk field in Iraq terminates at Tripoli; the trans-Arabian pipeline from Saudi Arabia ends at Sidon.

Liberia (Republic)

Area: c. 43,000 square miles.

Population (est. 1955): 1,250,000 (native Negro, 99%; American Negro, .8%; white, .1%; others, .1%).

Density per square mile: c. 29.1.

President: William V. S. Tubman.

Principal city (census 1956): Monrovia, 41,829 (capital and chief port).

Monetary unit: U. S. dollar.

Languages: English (official), native tongues.

Religion: Protestant Christian (official); Moslem, Catholic, Pagan.

STATUS IN THE WORLD TODAY

Liberia has never been a colonial possession and consequently has not shared in the wave of nationalism which has swept Africa since 1945. Created as a result of the efforts of the American Colonization Society to settle ex-slaves in West Africa, it celebrated the centennial of its independence in 1947. With this historical background, it has had extremely close relations, both diplomatic and economic, with the United States. Because of the country's strategic importance, American troops were stationed there in World War II. Its government is modeled on the American system and the Liberian dollar is at par with the American dollar.

During the past thirty years, Liberia has made remarkable economic progress, but even with outside help has been unable thus far to produce sufficient revenue to create much-needed educational and public health facilities. Illiteracy is still high among tribal groups in the interior, and they have little share in the governing of the country which is largely in the hands of the 15,000 Americo-Liberians, descendants of the slaves who were freed on its shores. Revenue from the Firestone Rubber Company's plantation concessions has helped the government to escape from its chronic budget deficits. Further development of natural resources has, in some instances, been hindered by the sparse population of many parts of the interior

which have only four or fewer persons per square mile.

GOVERNMENT. The government is modeled after that of the United States. The President and Vice President are popularly elected for eight years. The 31-member House of Representatives is elected for four years and the ten-member Senate for six years. Suffrage is extended only to land-owners over 21 who are of Negro blood, but a 1946 constitutional amendment provided for the seating in the House of an aborigine from each province in the hinterland. Women have the franchise. Liberia's army of about 4,000 men is organized on a militia basis.

SOCIAL AND ECONOMIC CONDITIONS. The English-speaking descendants of U. S. Negroes, known as Americo-Liberians, are the intellectual and ruling class. The aborigines, virtually all uncivilized, are divided into some twenty-eight tribes speaking different dialects. Some are Moslems or pagans. The Christian population includes Anglicans, Methodists, Catholics, Baptists, and Presbyterians.

Chief exports in 1957 were rubber (66%), iron ore (20%), and diamonds (3%). Leading customers were the United States (78%), the Netherlands (7%), and Western Germany (6%); leading suppliers, the United States (63%), Western Germany (11%), and Britain (9%).

Libya (Kingdom)

Area: 679,358 square miles.
Population (census 1954): 1,091,830 (Berber, with Arab admixture, 93%; Italian, 5%; Jewish, 2%).
Density per square mile: 1.6.
Ruler: King Idris I.
Prime Minister: Abdul Majid Kobar.
Principal cities (census 1954):* Tripoli, 130,238 (joint capital); Bengasi, 70,533 (joint capital).
Monetary unit: Libyan pound (£L).
Languages: Arabic, Italian.
Religions: Moslem (93%), Christian (5%), Jewish (2%).

STATUS IN THE WORLD TODAY

The present government of Libya is comparatively friendly toward the United States, and under a 1954 agreement we maintain a large air base at Wheelus Field. More than one-quarter of the national income is derived in one form or another from the United States, and an American oil firm started commercial production from wells it had drilled early in 1959. The country, however, is the scene of considerable Soviet and Egyptian activity, and part of the population is im-

pressed by Soviet offers to build roads, ports, and hospitals without political conditions attached. The western part of the country leans toward the West; the eastern part is more oriented toward the Middle East, with some pro-Nasser sentiment.

HISTORY AND GOVERNMENT. Libya, stretching along the northern coast of Africa between Tunisia and Egypt, was a part of the Turkish dominions from the sixteenth century until 1911. Following the outbreak of hostilities between Italy and Turkey in that year, Italian troops occupied Tripoli; Italian sovereignty was recognized in 1912 by the Treaty of Ouchy.

Libya was the scene of much desert fighting during World War II. After the fall of Tripoli on Jan. 23, 1943, it came under Allied administration. The U. N. General Assembly voted on Nov. 21, 1949, that Libya should become independent by 1952.

Following the adoption by the constituent assembly of a Constitution, the independence of the country was proclaimed by King Idris I on Dec. 24, 1951.

Under the Constitution, Libya is a hereditary monarchy with a federal form of government. Tripolitania, Cyrenaica, and the Fezzan are the constituent provinces. It has a bicameral Parliament consisting of a Senate of 24 members, half named by the King and half by the three provincial legislatures, and a House of Representatives elected on the basis of 1 deputy for every 20,000 inhabitants. Tripolitania has 35 members, Cyrenaica 15, and the Fezzan 5. The Cabinet, headed by the Prime Minister, is responsible to the federal Parliament.

The ruler, King Idris I, hereditary head of the powerful Senussi sect in Cyrenaica, was born in 1890.

SOCIAL AND ECONOMIC CONDITIONS. Tripolitania, with one-sixth the area, has 68% of the population; Cyrenaica has 27% and the Fezzan 5%. About 75% of the population is rural and about 45% of that is nomadic or seminomadic.

Animal husbandry is the basic economic activity, and there are considerable numbers of cattle, sheep, camels, and goats. Agriculture is possible only in the Mediterranean coastal region, where dates, olives, citrus fruit, wheat, and barley are grown, and in oases in the Fezzan and elsewhere; here the principal product is dates. Sponge and tunny fisheries are carried on off the coast.

Chief exports (1956) were peanuts (22%), scrap iron (13%), and esparto (11%). In 1957, Italy was the leading customer (58.3%) and supplier (27.4%).

Liechtenstein (Principality)

Area: 61 square miles.

Population (est. 1957): 15,000 (mostly German).

Density per square mile: 243.6.

Ruler: Prince Franz Joseph II.

Chief of Government: Alexander Frick.

Principal city (census 1955): Vaduz, 3,031 (capital).

Monetary unit: Swiss franc.

Language: German.

Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Tiny Liechtenstein lies on the east bank of the Rhine, just south of Lake Constance, between Austria and Switzerland. It abolished its army in 1868 and has managed to stay neutral and undamaged in all European wars since that date.

Founded in 1719, Liechtenstein became independent in 1866. Franz Joseph II, the reigning Prince, was born in 1906, and succeeded his great uncle, Franz I, in 1938. In 1943 he married Countess Gina Wilczek of Austria.

The Constitution of 1921 provided for a legislature, the *Landtag*, of fifteen members elected by direct, universal suffrage. Liechtenstein adopted Swiss currency in 1921, and has been part of the Swiss Customs Union since 1924. Its foreign trade statistics are included in those of Switzerland, which also administers the country's telegraph and postal service.

Wheat, wine, and fruit are the chief products. There are small manufactures of cotton, leather, and pottery.

Liechtenstein's area includes low valley land and upland peaks—Falkais at 8,401 feet, and Naafkopf, 8,432 feet. The chief mineral product is marble.

Lithuania

Area: 25,174 square miles.

Population (1956): 2,700,000 (1940: Lithuanian, 81% [1950: 55%]; German, 4%; Polish, 3%; Russian, 2%; others, 10%).

Density per square mile: 107.5.

Principal cities (1956): Vilnius (Wilno), 200,000 (capital); Kaunas, 195,000 (river port).

Language: Lithuanian.

Religions: Roman Catholic, 80%; Lutheran, 5.5%; others, 14.5%.

HISTORY AND GOVERNMENT. Southernmost of the three Baltic states, Lithuania in the middle ages was a grand duchy joined to Poland through royal marriage. Poles and Lithuanians merged forces to defeat the Teutonic Knights of Germany at Tannenberg in 1410 and extended their power far into Russian territory. In 1795, however, following the third partition of Poland, Lithuania fell into Russian hands

and did not gain its independence until 1918, toward the end of World War I.

The republic was occupied by the U.S.S.R. in 1939 and annexed outright the following year. From 1940 to 1944 it was occupied by German troops and then was retaken by the Soviet Union. Western countries, including the United States have not recognized the Russian annexation.

Luxemburg (Grand Duchy)

Area: 999 square miles.

Population (est. 1957): 316,000 (Luxemburgian, French, German).

Density per square mile: 316.3.

Ruler: Grand Duchess Charlotte.

Premier: Pierre Werner.

Principal city (est. 1953): Luxemburg, 66,382 (capital, iron and steel).

Monetary unit: Luxemburg franc.

Languages: Luxemburgian, French, German.

Religion: Mainly Roman Catholic.

STATUS IN THE WORLD TODAY

Luxemburg, traditionally neutral, is firmly committed to Free Europe. Although its military strength is negligible, it signed the North Atlantic Pact in 1949, a year after it abolished its unarmed neutrality and made military service compulsory. With Belgium and the Netherlands, it is a member of the Benelux Customs Union, one of the five great trading areas of the world. Its foreign policy has been traditionally friendly to the United States.

HISTORY AND GOVERNMENT. Sigefrol, Count of Ardennes, an offspring of Charlemagne, was Luxemburg's first sovereign ruler. In 1060 the country came under the rule of the House of Luxemburg. From the 15th to the 18th centuries, Spain and Austria held it in turn. The Congress of Vienna in 1815 made it a Grand Duchy and gave it to William I, King of the Netherlands. In 1839 the Treaty of London ceded the western part of Luxemburg to Belgium. Luxemburg's legislature consists of an Upper Chamber appointed by the sovereign and of a Chamber of Deputies of 52 members elected for 6 years. Half the Chamber of Deputies is elected every 3 years.

ECONOMIC CONDITIONS. Although the soil is not very fertile, agriculture is prosperous. Principal crops are potatoes, oats, wheat, rye, and grapes.

The mining and metallurgical industries, based on iron ore found in the south, are the most important.

By a customs union between Belgium and Luxemburg which came into force on May 1, 1922, to last for 50 years, customs

frontiers between the two countries were abolished. On Jan. 1, 1948, an economic union with Belgium and the Netherlands (Benelux) came into existence. Luxemburg's foreign trade figures are included in those of Belgium and no separate statistics are available; exports consist chiefly of iron and steel products.

Luxemburg's prosperity depends largely on its large iron ore deposits.

Maldiv Islands (Sultanate)

Area: c. 115 square miles.

Population (est. 1955): 89,000.

Density per square mile: c. 773.9.

Sultan: Amir Mohammed Farid Didi.

Prime Minister: Ibrahim Nasir.

Principal city (est.): Malé, 8,000 (capital).

Monetary unit: Rupee.

Languages: Sinhalese (dialect), Arabic.

Religion: Moslem.

HISTORY AND GOVERNMENT. The Maldiv Islands, about 400 miles to the southwest of Ceylon in the Indian Ocean, were first visited by the Portuguese in the sixteenth century. They came under British protection in 1887 and were a dependency of the colony of Ceylon until 1948, when relations with Britain were formalized in a treaty which left domestic affairs in the hands of the islanders. Reactivation of a British airfield was announced Jan. 3, 1957.

For centuries a sultanate, the islands adopted a republican form of government in 1952, but the sultanate was restored in Feb., 1954, and is elective, not hereditary. The Sultan is elected by the parliament. The latter consists of a Senate of 80 members and a Lower House of 46 members elected by popular vote. All men and women over 18 have the franchise.

The people are great traders and fishermen. Besides fishing, coir making is the chief local industry. Exports include coir, coconuts, copra, millet, and fruit.

The islands consist of 12 coral atolls with about 2,000 small islands, of which about 300 are inhabited.

Mexico (Republic) (Estados Unidos Mexicanos)

Area: 760,373 square miles.

Population (est. 1958): 32,348,000 (mestizo, 55%; Indian, 29%; white, 15%; others, 1%).

Density per square mile: 42.5.

President: Adolfo López Mateos.

Principal cities (est. 1958): Mexico City, 4,250,000 (capital); (census 1950) Guadalajara, 377,016 (manufacturing); Monterrey, 333,422 (metallic industries); Puebla, 223,667 (cotton textiles); Mérida, 142,858

(sisal); San Luis Potosí, 125,662 (mineral smelting).

Monetary unit: Peso.

Languages (1940): Spanish, 94%; Indian, 6%.

Religion: Predominantly Roman Cath.

STATUS IN THE WORLD TODAY

Mexico has had one of the most stable governments in Latin America in the last two decades, and democratic institutions have become stronger. Three successive presidential elections were held in 1948, 1952 and 1958 without any major incident or attempt to overthrow the government, despite the fact that the elections were "managed" by the strongly entrenched government party, Partido Revolucionario Institucional. But freedom of speech, press, and thought are generally respected.

The country has made great social, economic, and political advances since its modern revolution began in 1910. Mexico's educational system and social service institutions have expanded rapidly, particularly in the last twenty years. The agrarian reform, virtually completed under the 1934-40 administration of President Lázaro Cárdenas, created a large group of small farmers, many with personal title to their lands, others members of "ejidos" or cooperative farms. The growth of this class meant creation of a much larger internal market for manufactured goods and paved the way for industrialization. Extensive foreign investment, particularly from the United States, has aided this industrialization. Automobile assembly plants, electrical products factories, and clothing-manufacturing plants are among the new foreign-financed establishments. Previous existing industries such as steel and textiles have been expanded.

HISTORY. Mexico's early history is shrouded in mystery. At least two civilized races—the Mayas and later the Toltecs—preceded the wealthy Aztec empire conquered in 1519-21 by the Spanish under Hernando Cortez. Spain ruled for the next 300 years until 1810 (the date was Sept. 16 and is now celebrated as Independence Day), when the Mexicans first revolted. They continued the struggle and finally won independence in 1821.

Turbulent years followed. From 1821 to 1877, there were two Emperors, several dictators and enough Presidents and provisional executives to make a new government on the average of every nine months. Mexico lost Texas (1836), and after defeat in the war with the United States (1846-48) it lost the area comprising the present states of California, Nevada, and Utah, most of Arizona and New Mexico, and parts of Wyoming and Colorado.

In 1855 the Indian patriot Benito Juárez began a series of liberal reforms, including the disestablishment of the Catholic Church, which had acquired vast property. A subsequent civil war was interrupted by the French invasion of Mexico (1861), the crowning of Maximilian of Austria as Emperor (1864), and then his overthrow and execution by forces under Juárez, who again became President in 1867.

The years after the fall of the dictator Porfirio Díaz (1877-80 and 1884-1911) were marked by bloody political-military strife and trouble with the U. S. culminating in the punitive expedition into northern Mexico (1916-17) in unsuccessful pursuit of the bandit-politician Pancho Villa.

GOVERNMENT. The President, popularly elected for six years and ineligible to succeed himself, governs with a Cabinet of ministers. The Federal Congress has two houses—the 162-member Chamber of Deputies, elected for three years (one for each 150,000 population) and the 60-member Senate, elected for six years. All married male citizens at least 18, and all single male citizens at least 21 are eligible to vote. Women received the right to vote in 1953.

Each of the twenty-nine states has considerable autonomy, with a popularly elected Governor, legislature and local judiciary. The President appoints the Governors of the two Federal territories, and the governing body of the Federal District.

ECONOMIC CONDITIONS. *Agriculture.* Primitive agricultural methods are steadily giving way to modern practices. More than 17,000,000 acres are under cultivation. The Yucatán peninsula, at the southern end of the Gulf of Mexico, raises more than half of the world supply of sisal hemp.

Stockraising is important on non-arable land. Mexico's inventory of livestock in 1958 included an estimated 16,900,000 cattle, 5,360,000 sheep, and 8,400,000 hogs.

Industry. The leading industrial products are cotton cloth and thread, beer, sugar, iron, and steel.

Chief exports in 1957 were cotton (18%), coffee (17%), lead (8%), copper (6%), and zinc (5%). The U. S. took 77% of the exports and supplied 77% of the imports. Other leading customers were Japan, Britain, and western Germany. Leading imports included machinery, vehicles and iron and steel products.

NATURAL FEATURES AND RESOURCES. Mexico is a great, high plateau, open to the north, with mountain chains on east and west and with ocean-front lowlands lying outside of them. It has two big spears—the peninsula of Lower California, which is mountainous, and the Yucatán peninsula, which is mostly a low plain. The eastern mountains are marked by high volcanoes.

Minerals. Mexico is one of the richest mineral countries in the world. It outranks all other countries in silver production. Other minerals are gold, lead, copper, zinc, antimony, tin, coal, and iron ore.

Most of the Mexican mining properties are foreign-owned, and the industry is declining in relative importance. The oil fields, lying along the east coast, were seized by the government in 1938, but later the foreign owners were indemnified.

Forests. Mexico's forests are of considerable importance; they include pine, oak, fir, mahogany, red and white cedar, and primavera. Resins, turpentine, and vegetable wax are also produced. Yucatán produces nearly all of the world's chicle, the juice of the sapodilla tree, used as the base of chewing gum.

Monaco (Principality)

Area: 0,606 square mile (375 acres).

Population (census 1956): 20,422.

Density per square mile: 32,049.5.

Ruler: Prince Rainier III.

Principal and only cities (census 1951): Monaco, 1,860; La Condamine, 9,858; Monte Carlo, 8,484.

Monetary unit: French franc.

Language: French.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

This world-famous gambling resort has been undergoing a domestic political crisis. In February, 1958, the National Council of Monaco passed unanimously a motion calling for constitutional reforms. Prince Rainier rejected the motion and declared that he would not tolerate attempts to curtail his powers. This warning was translated into action on January 29, 1959, when the Prince suspended the Constitution of 1911, dissolved the National Council and banned all public meetings. The move took place following a special session of the National Council which ended without voting the principality's budget. Prince Rainier has promised reforms of his own.

The special significance attached to the birth of descendants to Prince Rainier stems from a clause in the Treaty of July 17, 1919, between France and Monaco stipulating that in the event of vacancy of the Crown, the Monegasque territory would become an autonomous state under a French Protectorate. In this eventuality, the Monegasques would have to forego their privilege of not paying taxes.

HISTORY AND GOVERNMENT. A tiny, hilly wedge driven into the French Mediterranean coast nine miles east of Nice, Monaco is a little land of pleasure with a tourist business that runs as high as

1,500,000 visitors a year. Monaco had popular gaming tables as early as 1856. Five years later, a 50-year concession to operate the games was granted to François Blanc, of Bad Homburg. This concession passed into the hands of a private company in 1898.

The Phoenicians, and after them the Greeks, had a temple on the Monacan headland honoring Hercules. From *Monoi-kos*, the Greek surname for this mythological strong man, the principality took its name. After being independent for 800 years, Monaco was annexed to France in 1793 by the French Revolutionists, and was placed under Sardinia's protection in 1815. In 1861, it went under French guardianship but continued to be an independent country.

Prince Albert of Monaco gave the principality a Constitution in 1911, creating a National Council of eighteen members popularly elected for four years. The government is under a ministry, acting on the Prince's authority. The ruler, Prince Rainier III, born May 31, 1923, succeeded his grandfather, Louis II, on the latter's death, May 9, 1949. Rainier was married April 19, 1956, to Grace Kelly, U. S. actress. A daughter, Princess Caroline Louise Marguerite, was born Jan. 23, 1957, and a son, Prince Albert Louis Pierre on March 14, 1958.

Mongolian People's Republic (Outer Mongolia) (Republic)

Area: 591,119 square miles.

Population (est. 1957): 1,025,000 (Mongol, except for about 100,000 Russians and 50,000 Chinese).

Density per square mile: 1.7.

Chairman of Presidium: Zh. Sambu.

Prime Minister: Y. Tse Den-bal.

Principal city (est. 1957): Ulan Bator, 120,000 (capital).

Monetary unit: Tugherik.

Languages: Mongolian, Russian.

Religion: Lama-Buddhist.

STATUS IN THE WORLD TODAY

The Mongolian People's Republic is a buffer state between China and Russia. It has been a Soviet satellite since 1924, although the Communists have insisted that it is a sovereign state and have tried, unsuccessfully, to obtain U.N. membership for it. Closed off from the outside world for many years, it now offers the shortest rail route between Moscow and Peiping, and its capital, Ulan Bator, is a stop on the Moscow-Peiping air line. In 1958 it signed its first economic aid pact with Red China and is now receiving assistance

from that country as well as from the U.S.S.R.

HISTORY AND GOVERNMENT. The Mongolian People's Republic, known also as Outer Mongolia, is a Russian satellite that measures more than twice the area of Texas. It contains the original homeland of the historic Mongols, whose power reached its zenith during the thirteenth century under Kublai Khan. The area accepted Manchu rule in 1689, but after the Chinese Revolution of 1911 and the fall of the Manchus in 1912, the northern Mongol princes expelled the Chinese officials and declared independence under the Khutukhtu or "Living Buddha." In 1921, Soviet troops entered the country and facilitated the establishment of a republic by Mongolian revolutionaries in 1924 after the death of the last Living Buddha. China, meanwhile, continued to claim Outer Mongolia but was unable to back the claim with any strength. Under the Chinese-Russian Treaty of 1945, China agreed to give up Outer Mongolia, which, after a rigged plebiscite, became nominally independent.

The government of the republic is strikingly similar to the Soviet system. The Great Hural or Huraldan (parliament) is elected by universal suffrage, meets at least once in three years and picks thirty members to act as an executive committee—the Little Hural—which in turn selects a presidium of seven members as an interim body. A Cabinet of ten ministers appointed by the Little Hural governs the country.

ECONOMIC CONDITIONS. The country is largely pastoral. There are few areas suitable for crop growing, but some millet, rye, and wheat are produced. Most of the people are essentially nomadic or semi-nomadic; flocks and herds remain the chief source of wealth.

There are a few industrial enterprises. All land, natural resources, factories, mines, hay-making stations and public utilities are nationalized.

Foreign trade, a state monopoly, is carried on mainly with the Soviet Union, but also with Communist China. The leading exports are livestock, wool, hides, animal hair, meats, and furs.

NATURAL FEATURES AND RESOURCES. The productive regions of Outer Mongolia—a tableland ranging from 3,000 to 5,000 feet in elevation—are in the north, which is well drained by numerous rivers, including the Kerulen, Tola, Orkhon, and Selenga.

Reserves of 500,000,000 tons of coal are said to exist in the Nalaikha field near Ulan Bator. Some gold is mined. Deposits of antimony, copper, iron ore, lead, graphite, mercury, sulfur, and silver exist.

Morocco (Kingdom)

(Maroc)

Area: 174,553 square miles.

Population (est. 1957): 10,115,000.

Density per square mile: 57.9.

Ruler: King Mohammed V.

Prime Minister: Abdallah Ibrahim.

Principal cities (census 1951-52): Casablanca, 682,388 (chief seaport); Marrakesh, 215,312 (trading center); Fez, 179,372 (commercial center); Rabat, 156,209 (French administrative center); Tetuán (census 1950), 80,732 (Spanish administrative center).

Monetary units: French franc, Spanish peseta.

Languages: Arabic, French, Spanish.

Religions: Chiefly Moslem.

STATUS IN THE WORLD TODAY

Morocco has proclaimed a policy of "nondependence," or neutrality, in world affairs, but the trend is actually to the left. The new kingdom permitted the Soviet Union to establish an embassy in Rabat in 1958, received arms from Czechoslovakia, and, after a visit from the Iraqi Foreign Minister, joined the Arab League. It has demanded the evacuation of all foreign troops from its soil, including the network of American bomber bases which were established in 1950 under an agreement with France. The United States has agreed in principle to turn the bases over to Morocco to strengthen the hands of the moderates against the extremists; but no date has been set for any evacuation. Spending by personnel at these bases is estimated to contribute some \$30 million annually to the Moroccan economy, and in addition the country has received in aid from the United States \$20 million in 1957, \$30 million in 1958, and \$40 million in 1959. It still has a trade deficit of about \$70 million. Politically, the country is experiencing some unrest due to the split of the Istiqlal (Independence) party into two warring factions, right-wing and left-wing.

HISTORY. Morocco, about the size of California, is just south of Spain across the Strait of Gibraltar and looks out on the Atlantic from the northwest shoulder of Africa. It was once the home of the Berbers, who helped the Arabs invade Spain in A.D. 711 and then revolted against them and gradually won control of large areas of Spain for a time after 739.

The country was ruled successively by various native dynasties and maintained regular commercial relations with Europe, even during the 17th and 18th centuries when it was the headquarters of the famous Sallí pirates. In the 19th century, clashes with the French and Spanish be-

came frequent. Finally, in 1904, France and Spain divided Morocco into zones of French and Spanish influence, and these were established as protectorates in 1912.

Meanwhile, Morocco had become the object of big-power rivalry, which almost led to a European war in 1905 when Germany attempted to gain a foothold in the rich mineral country. By terms of the Algeiras Conference (1906), Morocco was internationalized economically and France's privileges were limited. War again seemed imminent in 1911, when Germany dispatched a warship to Agadir in an evident attempt to intimidate France. Again the dispute was settled, however, and this time Germany recognized France's right to establish a protectorate over Morocco.

The Tangier Statute, concluded by Britain, France and Spain in 1923, created an international zone at the port of Tangier, permanently neutralized and demilitarized. In World War II, Spain occupied the zone, ostensibly to insure order, but was forced to withdraw in 1945, and the international rule was re-established.

Sultan Mohammed V was deposed by the French in Aug. 1953 and replaced by his uncle, but nationalist agitation forced his return in Nov. 1955.

France recognized the independence and sovereignty of Morocco on March 2, 1956. Spain followed on April 7, 1956. The Tangier international zone was abolished by a declaration signed Oct. 29, 1956. Morocco was admitted to the U. N. Nov. 12, 1956.

GOVERNMENT. In May, 1958, King Mohammed V promulgated a royal charter providing for the establishment of a Deliberative Assembly which is to share with him the exercise of legislative power. The charter also stresses the principle of individual and collective responsibility of Cabinet Ministers to the monarch, and provides for elections for rural and municipal councils which, in turn, elect representatives to the Deliberative Assembly.

ECONOMIC CONDITIONS. The natives are Berbers, roughly divided by customs and way of life into three groups—the Riff group along the coast, the central or Berber group in the mid-Atlas Mountains, and the southern or Cleuh in the high Atlas and the Sus. There is a large Jewish population. Most of the Europeans live in the cities.

Morocco is essentially agricultural. Corn, beans, peas, hemp, wheat, barley, sorghum, citrus fruits, olives, and dates also are raised. In 1955 there were 15,400,000 sheep and 2,466,000 cattle.

In the former Spanish zone, agriculture is largely undeveloped, but it has potential importance. Barley, wheat, maize and sorghum crops are the most important.

Manufacturing industries introduced by Europeans, mostly small, produce chemicals, flour, leather, stone, beverages and textiles. Native industries include carpet weaving and making Turkish slippers.

In 1956 chief exports were phosphate (20%), barley (7%), olive oil (7%), and citrus fruit (6%). France took 53% of the exports and supplied 48% of the imports, which included sugar, vehicles, petroleum products, cotton cloth, and tea. A large proportion of the trade was carried on with Spain. Major exports are iron ore, fish and, grain; imports include flour, sugar, tea, wine and, textiles.

Casablanca, which handles 80% of the French zone trade, has perhaps the world's largest artificial port.

Exploitation of French Morocco's almost inexhaustible deposits of phosphate is a state monopoly. Other major minerals are coal, cobalt, iron ore, manganese ore, molybdenum, tin, zinc, and lead. Iron ore is the chief mineral of the Spanish zone; others are antimony and manganese.

NATURAL FEATURES. On the Atlantic coast there is a fertile plain; the Mediterranean coast is mountainous, making most of the Spanish zone a rugged area. The Atlas Mountains, running northeastward from the south to the Algerian frontier, average 11,000 feet in elevation.

Nepal (Kingdom)

Area: 54,510 square miles.

Population (estimated 1957): 8,787,000 (Gurkha [predominant], Magar, Gurung, Bhotia [Tibetan], Newar).

Density per square mile: 161.9.

Ruler: Mahendra Bir Bikram.

Prime Minister: B. P. Koirala.

Principal city and capital: Katmandu (estimated population, 108,800).

Monetary unit: Nepalese rupee.

Languages: Parbatia, Gubhajus, Tibtan.

Religions: Hinduist, Buddhist.

STATUS IN THE WORLD TODAY

Nepal, dependent as it is upon other nations for access to the rest of the world, follows the neutralist foreign policy of India, which is committed by treaty to go to Nepal's defense should it be attacked from any quarter. Formerly known as the "forbidden kingdom," which few foreigners could enter, the country has now gone so far in the other direction as to open a tourist bureau. Although concerned and sad over the Communist Chinese occupation of Tibet, Nepal follows the Indian policy of trying to maintain friendly relations with Red China because of its geographical position.

The new Constitution promulgated by King Mahendra in February, 1959, provides for a constitutional monarchy with a bicameral parliament and a Cabinet responsible to the Lower House. The Upper House has 36 members, half of whom are elected by the Lower House and the other half appointed by the King. The Lower House has 109 members elected under Nepal's first electoral law dated June 3, 1958. Candidates must be 25 years of age and all Nepalese of 21 years and over are granted voting rights. In the elections held in February-April, 1959, the Nepali Congress Party, identified with the revolutionary movement of 1950, won 74 seats in the Lower House. On May 27, 1959 the new cabinet was sworn in with B. P. Koirala, President of the Nepali Congress Party, as Premier.

The country is getting economic assistance from the United States, India, Red China, and the U.S.S.R. The U. S. is also developing the nation's nine airports.

The Nepalese do not particularly like their dependence on India, but, except through China, they have no other access to the outside world. And Nehru, although yielding without any measurable opposition to Peiping's occupation of Tibet, has stated that India's true borders are the Himalaya Mountains on the north of Nepal, and that India was "not going to tolerate any person coming over that barrier."

HISTORY AND GOVERNMENT. A landlocked country about the size of Iowa, lying between the Republic of India and Tibet, Nepal contains Mt. Everest, the tallest measured mountain in the world.

The Gurkhas invaded Nepal from India in 1768 and conquered it. A commercial treaty was signed with Britain in 1792, and in 1816, after more than a year's hostilities, the Nepalese agreed to allow British residents to live in Katmandu, the capital. In 1923 Britain recognized the absolute independence of Nepal. King Tribhubana was deposed on Nov. 7, 1950, but was returned to the throne with Indian assistance on Feb. 15, 1951. On his death Mar. 13, 1955, his son Mahendra became ruler. Nepal was admitted to the U. N. in 1955.

ECONOMIC CONDITIONS. Cultivated and irrigated where possible, the main valley of Nepal grows rice, wheat, pulse, fruits, vegetables, spices, sugar cane, and potatoes. A few sheep and cattle are grazed. Manufacturing is limited to native handicraft, but jute and textile mills are being established. Trade with India and Pakistan passes through frontier stations; there are two mountain trade routes to Tibet.

Main exports include hides, skins, opium, gums, resins, dyes, jute, wheat, pulse, rice, spices, and timber. Two railroads enter Nepal for short distances—one from Raxaul, India, to Amlekhganj, the other from Jayauagar to Bijulpura.

NATURAL FEATURES AND RESOURCES. Along its southern border, Nepal has a strip of level land which is partly forested, partly cultivated. North of that is the slope of the Himalayan Range, including Mt. Everest (29,028 ft.), which was climbed for the first time in 1953, and many peaks higher than 20,000 feet. Mineral resources, nearly all unexploited, include lignite, copper, zinc, lead, sulfur, marble, and iron. Southern Nepal has valuable forests which yield gum, timber, resin, and dye. Hemp plants grow wild.

Netherlands (Kingdom) (Koninkrijk der Nederlanden)

Area: 12,482 square miles.*

Population (est. 1957): 11,095,726 (practically all Dutch).

Density per square mile: 888.9.

Sovereign: Queen Juliana.

Prime Minister: Jan Eduard de Quay.

Principal cities (est. 1957): Amsterdam, 871,188 (capital, financial center); Rotterdam, 722,718 (chief port); The Hague, 606,728 (seat of government); Utrecht, 247,816 (railway center); Haarlem, 167,264 (tulip center); Eindhoven, 157,621 (industrial center).

Monetary unit: Guilder.

Language: Dutch.

Religions (census 1947): Roman Catholic, 38.5%; Dutch Reformed, 31.0%; other Protestant, 13.3%; Jewish, 0.2%; others and no creed, 17.0%.

* Excluding waterways and bodies of water larger than 185 acres.

STATUS IN THE WORLD TODAY

The foreign policy of the Netherlands is overwhelmingly in line with the Atlantic Pact, and the country is one of the firmest friends of the United States in Europe or in the world. It occupies a position in the world economy far out of proportion to its size as a transshipment point for trade both to and from the continent. It was the recipient of American aid after both World Wars.

The Netherlands lost most of its colonial empire in 1949 when its East Indies possessions achieved independence. It is still engaged in a dispute with its former colony over the ownership of West New Guinea (see *Indonesia*). In the Western hemisphere it owns a number of islands comprising the Netherlands West Indies, as well as Surinam (also known as Dutch Guinea) on the South American continent.

HISTORY AND GOVERNMENT. Julius Caesar found the low-lying Netherlands inhabited by Germanic tribes, the Nervii, Frisii, and Batavi. The Batavi on the Roman frontier did not submit to Rome's rule until 13 B.C., and then only as allies. A part of Charlemagne's empire in the 8th and 9th centuries A.D., the area later passed into the hands of Burgundy and the Austrian Hapsburgs, and finally in the 16th century came under Spanish rule. When Philip II of Spain suppressed political liberties and the growing Protestant movement in the Netherlands, a revolt led by William of Orange broke out in 1568. Under the Union of Utrecht in 1579, the seven northern provinces became the Republic of the United Netherlands.

The Dutch East India Company was established in 1602, and by the end of the 17th century Holland was one of the great sea and colonial powers of Europe.

The Netherlands is a constitutional monarchy with a bicameral legislature. The Parliament consists of an Upper Chamber of 50 members elected for 6 years by representative bodies of the provinces, and of a Lower Chamber of 150 members elected by popular vote for 4 years. The Upper Chamber cannot introduce or amend bills, only approve or reject them. Members of Parliament are not eligible for Cabinet posts.

RULER. Queen Juliana, who was born April 30, 1909, was married on Jan. 7, 1937, to Prince Bernhard of Lippe-Biesterfeld (born in 1911). They have four daughters: Beatrix, heiress apparent (born Jan. 31, 1938); Irene (born 1939); Margriet Francisca (born 1943); and Maria Christina (born 1947).

ECONOMIC CONDITIONS. *Agriculture* Dutch farms are characteristically small, with only a few larger than 250 acres. Dairying is more important than crop growing; production of cheese milk, butter and eggs is under state control.

In 1957 there were 3,097,000 cattle, 2,520,000 hogs, 485,000 sheep, and 199,000 horses. Large quantities of vegetables and fruits are raised for export.

Almost as important as the dairy industry is the raising of tulip, hyacinth, and other flower bulbs in the area around Haarlem.

Industry. The Netherlands is a highly industrialized nation, utilizing both overseas raw materials and domestic agricultural products. Leading industries are textiles, clothing, shipbuilding, shoes, food, and building materials.

The Netherlands ranks high among the world's shipbuilding nations; also pig iron and steel are important. Amsterdam is one of the world's diamond-cutting centers.

Trade. Principal customers in 1957 were Western Germany (18%), Belgium (16%), Britain (11%), the U. S. and Canada (6%), and France (5%). Leading suppliers were Western Germany (19%), Belgium (18%), the U. S. and Canada (14%), Britain (8%), and France (3%). The chief exports were petroleum and coal-tar products (10%), dairy products and eggs (10%), electrical machinery and apparatus (6%), and fabrics and clothing (6%). Leading imports were machinery, iron and steel and manufactures, petroleum and products, cereals and flour, and wood and manufactures.

Communications. The Dutch merchant marine is the seventh largest fleet in the world. An extensive network of rivers expanded by many canals has led to extensive development of inland shipping.

NATURAL FEATURES AND RESOURCES. Part of the great plain of north and west Europe, the Netherlands has maximum dimensions of 190 by 160 miles and is low and flat except in Limburg in the south-east, where some hills rise to 300 feet. About half the country's area is below sea level, making the famous Dutch dikes a requisite to the use of much land. Reclamation of land from the sea through dikes has continued through recent times.

All drainage reaches the North Sea, and the principal rivers—Rhine, Maas (Meuse), and Schelde—have their sources outside the country. The Rhine is the most heavily used waterway in Europe.

Netherlands minerals are few. The only important ones are coal, crude petroleum, and salt. There also are peat swamps and about 600,000 acres of forest.

NETHERLANDS OVERSEAS TERRITORIES

NETHERLANDS ANTILLES—Status: Part of the United Kingdom of the Netherlands.

Area: 371 square miles.
Population (est. 1958): 190,916.
Capital: Willemstad (est. 1955: 49,248).
Governor: F. E. J. van der Valk (acting).
Prime Minister: Ephraim Jonckheer.
Foreign trade (1957), exports, 1,642,000,-000 florins; imports, 1,813,000,000 florins. Chief export: petroleum products (more than 99%).

Agricultural products: aloes, beans, corn. Manufactures: refined petroleum, straw hats.

Mineral products: lime phosphate, salt.

This comprises two groups of Caribbean islands 500 miles apart; one, about 40 miles off the Venezuelan coast, consists of Curaçao (173 sq. mi.), Bonaire (95 sq. mi.), and Aruba (69 sq. mi.); the other, lying to the northeast, consists of 3 small islands with a total area of 29 square miles. The Dutch acquired the island of Curaçao from Spain in 1634.

The Governor is assisted by a local

Legislature and Cabinet. The area has complete autonomy in domestic affairs.

The economy of the Netherlands Antilles is based almost entirely on the refining at Curaçao and Aruba of crude petroleum, which comes chiefly from the adjacent Maracaibo fields in Venezuela.

SURINAM (Dutch Guiana)—Status: Part of the United Kingdom of the Netherlands.

Area: 55,144 square miles.
Population (est. 1957): 236,500.*
Capital: Paramaribo (pop. 1957: 103,400).
Governor: J. van Tilburg.
Prime Minister: J. H. E. Ferrier.
Foreign trade (1957): exports, 63,760,000 florins (69% to the U. S.); imports 73,000,-000 florins (36% from the U. S.). Chief export: bauxite (77%).

Agricultural products: rice (1956: 71,182 metric tons), sugar, coffee.

Minerals (1956): bauxite, 3,485,000 metric tons; gold, 6,719 troy oz.

Forest products: balata (1956: 270 metric tons), timber.

* Including aborigines, numbering about 26,000.

Surinam lies in northeastern South America between British and French Guiana. It was received by the Dutch from England at the Peace of Breda (1667) in exchange for New York and at that time included British Guiana, which was seized by England in 1803 and formally ceded to her after the Napoleonic Wars.

The Governor of Surinam (appointed by the Crown) is assisted by a local Legislature and Cabinet, which have sole responsibility in domestic affairs.

Mining is the most important activity, and only about 65,000 acres are devoted to agriculture. The largest bauxite mines are owned by Aluminum Company of America subsidiaries.

From its settled coastal plain, Surinam runs back to a virtually unexplored mountain and jungle area.

NETHERLANDS NEW GUINEA—Status: Part of the United Kingdom of the Netherlands.

Area: 160,618 square miles.
Population (est. 1955): 700,000.
Capital: Hollandia (pop. 1957: 15,000).
Governor: Jan van Baal.
Agricultural products: sago, coconuts, sugar cane, sweet potatoes.
Minerals: petroleum (1956: 2,618,430 barrels), nickel, chrome.

The western part of New Guinea, second largest island of the world, with smaller adjacent islands, forms part of the kingdom of the Netherlands. The area remained Dutch upon the transfer of sovereignty in Indonesia in Dec., 1949, with the understanding that its status would be determined within one year by negotiation between the Netherlands and Indonesia. Subsequent negotiations did not lead to any agreement.

Dutch influence dates back to the activities of the Dutch East India Company in the 17th century.

The Papuans are the dominant stock; there are also Melanesian and Negrito elements. Commerce and industry are almost unknown, except for oil production, and life is primitive, with head-hunting and cannibalism not unknown even today.

Nicaragua (Republic) (República de Nicaragua)

Area: 57,143 square miles.*

Population (est. 1957): 1,333,000 (1943: mestizo, 69%; white, 17%; Negro, 9%; Indian, 5%).

Density per square mile (land only): 24.8.

President: Luis Somoza Debayle.

Principal cities (est. 1956): Managua, 156,381 (capital); León, 41,181 (trading center); Granada, 26,917 (trading center); Chinandega, 17,180 (sugar).

Monetary unit: Córdoba.

Language: Spanish.

Religion: Roman Catholic.

* Including inland water area of 3,475 square miles.

STATUS IN THE WORLD TODAY

Nicaragua has been under the control of a military dictatorship since 1936, first under General Anastasio Somoza, who seized power that year, and since his assassination in 1956 under his son, Luis. Nicaragua is one of the targets of a group of revolutionists reported to have the encouragement of two recently liberated nations, Cuba and Venezuela. Under the Somozas, the country has experienced considerable economic development in which the family has participated and from which it has benefited. Agriculture has been diversified, a network of roads has been constructed and manufacturing has begun to appear in several cities.

HISTORY. Nicaragua, which established independence in 1838, was first visited by the Spaniards in 1522. The chief of the country's leading Indian tribe at that time was called Nicaragua, from whom the nation derived its name. A United States naval force intervened in 1909 after two American citizens had been executed, and a few U. S. Marines were kept in the country from 1912 to 1925. The Bryan-Chamorro Treaty of 1916 gave the United States an option on a canal route through Nicaragua, and naval bases. Disorder after the 1924 elections brought in U. S. Marines again, but they were withdrawn after the U. S.-supervised elections of 1928.

GOVERNMENT. The Constitution of 1950 provides for a President popularly elected

for six years, and a two-house Congress—a 42-member Chamber of Deputies and a 16-member Senate—both elected for six years. Former Presidents of the republic automatically become Senators.

ECONOMIC CONDITIONS. More than half of Nicaragua is jungle-covered; agriculture, the leading industry, utilizes only 10% of the total land.

Chief exports in 1957 were coffee (40%), cotton (31%), and gold (10%). Leading customers were the U. S. (39%), West Germany (17%), and the Netherlands (14%); leading suppliers were the U. S. (58%), West Germany (17%), and the Netherlands Antilles (7%).

NATURAL FEATURES AND RESOURCES. Largest but most sparsely populated of the Central American nations, Nicaragua is mountainous in the west, with fertile valleys. A plateau slopes eastward toward the Caribbean.

Two big lakes—Nicaragua, about 100 miles long, and Managua, about 38 miles long—are connected by the Tipitapa River. The Pacific coast is bald and rocky; the Caribbean coast, swampy and indented, is aptly called the "Mosquito Coast."

Gold and silver are the most important minerals. One-third wooded, Nicaragua produces mahogany, rosewood, cedar, rubber, and ipecac root.

Norway (Kingdom) (Norge)

Area: 125,064 square miles.

Population (est. 1958): 3,526,000 (Norwegian, 98.7%; Swedish, .8%; others, .5%).

Density per square mile: 28.2.

Sovereign: King Olaf V.

Prime Minister: Einar Gerhardsen.

Principal cities (est. 1956): Oslo, 455,000 (capital, chief port); (census 1950) Bergen, 112,845 (seaport, shipbuilding); Trondheim, 56,669 (seaport, timber, fish); Stavanger, 50,647 (seaport, fisheries).

Monetary unit: Krone.

Language: Norwegian.

Religions: Evangelical Lutheran (state), 96.8%; others, 3.2%.

STATUS IN THE WORLD TODAY

Norway's foreign policy is strongly pro-Western and pro-American. Although its military strength is not great (army, navy, and air force are small), its strategic location and its firm adherence to NATO give it important significance in the cold war. For this reason it has been one of the targets of vituperative Moscow propaganda, having had a common frontier with the U.S.S.R. since the Russians took the Petsamo area from Finland in 1941.

HISTORY AND GOVERNMENT. Norwegians, like the Danes and Swedes, are of Teutonic origin. The Norsemen, also known as Vikings, ravaged the coasts of northwestern Europe from the eighth to the eleventh century.

In 1815, Norway, contrary to her wishes, fell under the control of Sweden. The union of Norway, inhabited by fishermen, sailors, merchants, and peasants, and Sweden, an aristocratic country of large estates and tenant farmers, was not a happy one, but it lasted for nearly a century. In 1905 the Norwegian parliament arranged a peaceful separation and invited a Danish prince to the Norwegian throne—King Haakon VII. A treaty with Sweden provided that all disputes were to be settled by arbitration, and that no fortifications be erected on the common frontier. Since the separation the two countries have lived amicably as neighbors.

When World War I broke out, Norway joined with Sweden and Denmark in a decision to remain neutral and to co-operate in the joint interest of the three countries. In World War II Norway was invaded by the Germans on April 9, 1940. She resisted for two months before the Nazis took over complete control. King Haakon and his government fled to London where they established a government-in-exile. Major Vidkun Quisling, who collaborated with the Nazis, was executed by the Norwegians in October, 1945.

Norway is a constitutional hereditary monarchy. Executive power is vested in the King together with a Cabinet, or Council of State, consisting of a Prime Minister and at least seven other members. The *Storting*, or Parliament, is composed of 150 members elected by the people under proportional representation. The *Storting* discusses and votes on political and financial questions, but divides itself into two sections (*Lagting* and *Odelsting*), to discuss and pass on legislative matters. The King cannot dissolve the *Storting* before the expiration of its term. There is universal suffrage, male and female, for all citizens over twenty-three. In 1913 Norway had the distinction of being the first independent nation to establish woman suffrage.

RULER. Olaf V, born July 2, 1903, only son of Haakon VII and Princess Maud (1869-1938), third daughter of Edward VII of England, succeeded to the throne on the death of his father Sept. 20, 1957. He married Princess Märtha of Sweden (1901-1954) on March 21, 1929. Their children are Princess Ragnhild Alexandria (born 1930), Princess Astrid (born 1932), and Prince Harald (born 1937).

ECONOMIC CONDITIONS. Land suitable for cultivation, estimated at less than 5

per cent of the total area, consists of strips in the deep narrow valleys and around fjords and lakes. Foodstuff production is insufficient to meet domestic needs. Leading crops, with 1957 production in metric tons, are wheat, 30,000; barley, 322,000; oats, 138,000; potatoes, 1,010,000; hay and fodder. The country is more adapted to stock raising than to crop growing; in 1957, there were 1,103,000 cattle, 1,821,000 sheep, 506,597 hogs, and 110,378 goats.

Raw materials produced in Norway form the basis of most of the manufactures. Leading industries are food, machinery, metals, wood, paper, and electro-chemicals.

In 1957 the leading customers were Britain (20%), Western Germany (13%), Sweden (10%), and the U. S. and Canada (7%). Leading suppliers were Britain (17%), Western Germany (17%), Sweden (16%), and the U. S. and Canada (13%). Chief exports were base metals (25%), fish and fish preparations (13%), pulp and waste paper (10%), and paper and manufactures (10%).

The normally adverse trade balance is offset to some extent by invisible exports, particularly the earnings of the large merchant marine.

NATURAL FEATURES AND RESOURCES. Nearly 70 per cent of Norway is uninhabitable and covered by mountains, glaciers, moors, and rivers. The hundreds of deep fjords that cut into Norway's coast line give it an over-all ocean front of more than 12,000 miles. Islands off the coast, numbering almost 150,000, form a breakwater and make a safe coastal shipping channel.

Mineral resources are extensive, but coal deposits are entirely lacking except in Spitsbergen. Important minerals are iron ore, aluminum, pyrite ore, zinc, copper ore, molybdenum ore, tungsten, antimony ore, tin, and silver.

Cheap electric power, produced mainly by hydroelectric plants, makes possible the extraction of nitrogen from the air and manufacture of potassium nitrate, an important fertilizer.

The forests, largely in the south and southeast, are one of the chief natural resources. About 25% of the total area is covered with forests, of which 70% is pine.

Fishing is one of the principal industries, engaging as many as 100,000 persons.

Outer Mongolia. See Mongolian People's Republic

Palestine. See Israel; Jordan

Panamá (Republic) (República de Panamá)

Area: 28,753 square miles.

Population (est. 1958): 995,000 (1940: mestizo, 65.34%; Negro, 13.31%; white, 11.07%; Indian, 9.53%; others, .75%).

Density per square mile: 34.6.

President: Ernesto de la Guardia, Jr.

Principal cities (est. 1955): Panamá City, 206,900 (capital and chief port); Colón, 56,100 (chief Caribbean port); Ciudad David, 14,847 (bananas).

Monetary unit: Balboa.

Language: Spanish (official).

Religion: Roman Catholic, 93%; Protestant, 6%; others, 1%.

STATUS IN THE WORLD TODAY

The importance of the Republic of Panamá, a pro-Western democracy, lies in the Panama Canal, which has become a convenient target of the country's extreme nationalists. Encouraged by Nasser's example, a few of them would like to nationalize the international waterway. Others want the United States to give Panamá 50% of the gross receipts from the operation of the canal. The government itself is protesting against alleged discrimination in the hiring of Panamanians in the Canal Zone and against sales in United States government-owned stores in the zone, a profitable business which it feels should go to its own retailers. An Act of the Panamanian Congress extending territorial waters from three to twelve miles, which might force ships approaching and leaving the canal to pass through Panamá's jurisdiction, is a further cause of dispute, not only with the United States but with other nations. Politically, Panamá has experienced a series of minor upheavals in the past two years, and the landing of a group of less than ninety insurgents from Cuba was enough to cause a mild case of hysteria and an appeal for help to the Organization of American States. Economically, revenues from canal tolls are of decreasing importance and the country is beginning to exploit natural resources which have not been touched since independence was achieved. A steel mill has been built, a manganese mine has been opened, and farm land is being extended to help provide food for a population which just reaches one million but which is expected to double in ten years.

HISTORY. Visited by Columbus in 1502 on his fourth voyage and explored by Balboa in 1513, Panamá was the principal transshipment point for Spanish treasure and supplies to and from South and Central America in colonial days. In 1821,

when Central America revolted against Spain, Panamá joined Colombia, which already had declared its independence. For the next 82 years, Panamá attempted unsuccessfully to break away from Colombia. After U. S. proposals for canal rights over the narrow isthmus had been rejected by Colombia, Panamá proclaimed its independence with U. S. backing in 1903.

For canal rights in perpetuity, the United States paid Panamá \$10,000,000, and agreed to pay \$250,000 each year, increased to \$430,000 after devaluation of the U. S. dollar in 1933 and to \$1,930,000 under a revised treaty signed Jan. 25, 1955. In exchange, the United States got the Canal Zone, a ten-mile-wide strip across the isthmus, and a considerable degree of influence in Panamá's affairs.

GOVERNMENT. The President is elected by direct popular vote for 4 years and may not succeed himself. There are also 2 Vice-Presidents elected for 4 years. The legislature consists of a unicameral National Assembly of 53 members elected by direct popular vote for 4 years. Panamá has universal suffrage.

ECONOMIC CONDITIONS. About five-eighths of the nation is unoccupied. A fourth of the population is in Colón and in Panamá City, the oldest white settlement on the Pacific coast of the Americas. In the cities, the lower classes are Negro and Negroid, descendants of British West Indian laborers on the canal.

Bananas are the main agricultural crop. Chief exports in 1957 were bananas (58%) and fresh shrimp (28%). The United States was the leading customer (96%) and supplier (59%).

The Panama Canal is the country's biggest economic asset. The main railway is the U. S. Government-owned Panamá Railroad, 47.64 miles long, bridging the isthmus from Panamá City to Colón. In recent years many foreign ships have been registered in Panamá to escape high labor costs and governmental regulations in other nations.

NATURAL FEATURES. Panamá is roughly the size of South Carolina. At the narrowest and lowest point, the canal bisects the country. Outlying islands number about 630 in the Caribbean, 116 in the Pacific.

Paraguay (Republic) (República del Paraguay)

Area: 157,047 square miles.

Population (est. 1957): 1,638,000 (1950: mestizo, 94.9%; white, 3.0%; Indian, 2.1%).

Density per square mile: 10.4.

President: Gen. Alfredo Stroessner.

Principal cities (census 1950): Asun-

ción, 201,340 (capital); Villarrica, 14,680 (sugar, tobacco); Concepción, 14,640 (port, Paraguay river); Encarnación, 13,321 (rail terminus).

Monetary unit: Guaraní.

Languages: Spanish (official), Guaraní.

Religion: Roman Catholic (official).

STATUS IN THE WORLD TODAY

Paraguay has recently been the scene of considerable political unrest, possibly because the success of revolutionists in Cuba and Venezuela has revived hopes of opposition leaders, both inside the country and in exile. Although Gen. Alfredo Stroessner, the president, said in April, 1959, that he would send Congress a series of bills providing for gradual restoration of constitutional government, and later that month lifted the state of siege, a modified form of martial law, under which the country had been ruled since 1947, he dissolved the Chamber of Deputies in May, restored the stage of siege, and arrested scores of political leaders, some of them in the ruling Colorado party which, with the army, supports the government.

Despite the political unrest, the country enjoys economic stability and the government has instituted a certain amount of social and economic reform, such as giving small farmers land under an agrarian reform program, enacting social security legislation, extending collective bargaining, and encouraging a moderate degree of industrialization. The country remains, however, a predominantly agricultural and grazing nation.

HISTORY AND GOVERNMENT. In 1526 and again in 1529, Sebastian Cabot explored Paraguay when he sailed up the Paraná and Paraguay Rivers. From 1608 until their expulsion from the Spanish dominions in 1767, the Jesuits maintained an extensive establishment in the south and east of Paraguay. In 1811 Paraguay revolted against Spanish rule and became a nominal republic under two Consuls.

The Paraguayans are a homogeneous blend of Spanish, Portuguese, and Italian, with considerable Guaraní Indian blood. There are almost no Negroes; the 35,000 to 50,000 uncivilized Indians live mainly in the Chaco. The country is 90% bilingual, with Guaraní dominating over Spanish (the official language) in rural areas.

The President is elected by popular vote for 5 years. Paraguay has a Congress also elected by popular vote and a Council of State whose members are nominated by the Government. The Cabinet is appointed by the President and holds all effective

power, merely informing the Congress and Council of State of its decisions.

ECONOMIC CONDITIONS. A well-favored land, Paraguay is predominantly a cattle country, keeping about 4,000,000 head. The soil is fertile and the climate suitable for subtropical crops. The chief cash crop is cotton.

Chief exports in 1957 were timber (29%), quebracho extract (14%), and cotton (14%). Principal customers and suppliers in 1957 were Argentina, the United States, and Britain.

NATURAL FEATURES AND RESOURCES. Eastern Paraguay, between the Paraná and Paraguay Rivers, is upland country with the thickest population settled on the grassy slope that inclines toward the Paraguay River. The greater part of the Chaco region, to the west, is covered with marshes, lagoons, dense tropical forest, and jungle.

Forest resources are considerable, especially in the Chaco. Quebracho—the "Axe-breaker," a wood so heavy that it will not float—is the principal commercial tree. The wood has many uses, from paving blocks to ox-cart wheels. Quebracho tannic extract is the chief product.

Peru (Republic) (República del Perú)

Area: 482,258 square miles.

Population (est. 1958): 10,213,000 (white and mestizo, 53%; Indian, 46%; Asiatic, Negro and others, 1%).

Density per square mile: 21.2.

President: Manuel Prado y Ugarteche.

Principal cities (est. 1957): Lima, 1,135,131 (capital); Callao, 125,598 (port of Lima); Arequipa, 117,208 (commercial center); Cuzco, 66,167 (ancient Incan capital); Trujillo, 58,103 (mining).

Monetary unit: Sol.

Languages: Spanish, Quéchua, Aymará (Indian).

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Peru, where until recently military dictatorship was virtually endemic, has been undergoing an experiment in democracy which may completely transform the country's social structure. Traditionally ruled by an alliance of the commercial and rural aristocracy and the army, the country's political status quo has been challenged by the Aprista party, which arose from a student movement for university reform and social change. Although the Apristas showed they were the country's majority party, the party was declared illegal for many years. But the oppressiveness of the dictatorship, and general

world developments, convinced an important segment of the economic aristocracy that the changes advocated by the Apristas were bound to come sooner or later, and it would be better to have them come in a democratic manner through an Aprista regime than violently, as in neighboring Bolivia. This group's candidate for president, Manuel Prado, won in 1956 with the support of the Apristas, and immediately fulfilled his campaign promise to legalize the party. Since then he has presided over an uneasy regime which has guaranteed civil liberties but has been beset by serious economic and social problems. Many consider it a "caretaker" government holding office until the 1961 elections which the Apristas expect to win.

HISTORY. Peru, once part of the great Incan empire and later the major viceroyalty of Spanish South America, is more than three times the size of California. It was conquered in 1531-33 by Francisco Pizarro. On July 28, 1821, Peru proclaimed its independence, but the Spanish were not finally defeated until the Battle of Ayacucho on Dec. 9, 1824. For a hundred years thereafter the Peruvian course was rough. Revolutions were frequent, and a new war was fought with Spain in 1864-66. The dispute with Chile over Tacna and Arica was not finally settled until 1929.

GOVERNMENT. Under the 1933 Constitution, Peru elects by popular vote every six years a President, two Vice Presidents and a bicameral Congress—a Senate of 52 members and a Chamber of 183 members. The President is ineligible to succeed himself. The Cabinet, headed by the Prime Minister, is presidentially appointed.

Most Peruvians are of mixed Spanish and Indian blood. The Indians come from three main stocks—Quéchua, Aymará (Colla), and Chunchu. There is a relatively large Asiatic population.

ECONOMIC CONDITIONS. Land under cultivation is estimated at only slightly more than 10 per cent of the total area, with more than 80 per cent of the population being dependent upon agriculture. About one-eighth of the cultivated area in the irrigated coastal valleys of the central region is devoted to cotton, the most important crop. Stock raising supplies most of the country's meat needs, as well as wool, hides, and skins for export. Llamas, used as beasts of burden, and vicuñas and alpacas, noted for their wool, are native to Peru. Livestock estimates in Dec., 1956, showed 3,379,000 cattle (1955) 16,505,000 sheep, 1,341,000 hogs, and 3,419,000 alpacas and llamas.

Chief exports in 1957 were cotton (21%), sugar (16%), copper (11%), and lead

(9%). Chief suppliers were the United States (48%), Western Germany (10%), and Britain (8%); chief customers, the United States (41%), Britain (10%), and Chile (8%). Principal Peruvian imports are machinery and motor vehicles, foodstuffs (especially wheat), iron and steel manufactures, electrical goods, and chemicals.

NATURAL FEATURES AND RESOURCES. The Andes Mountains divide Peru into three sharply differentiated zones. To the west is the coastline, much of it arid, extending for 50 to 100 miles inland.

The mountain area, with peaks over 20,000 feet high, lofty plateaus and deep valleys, lies centrally. Beyond the mountains to the east is the heavily forested slope leading to the Amazonian plains.

Peru has vast mineral resources. It ranks fifth in world silver production and mines about 25 per cent of the world's vanadium. But mining is second to agriculture, and nearly all of it is in the hands of foreign capital. Petroleum and copper are the most important, with the latter controlled by the American-owned Cerro de Pasco Corporation, which also accounts for much of the gold and silver output.

An important industry on the outlying islands is the gathering of guano (bird excrement), a valuable fertilizer.

The Philippines (Republic)

Area: 114,830 square miles.

Population (est. 1958): 23,122,000 (Filipino, except [1948] 121,702 Chinese, 6,955 Americans, 1,886 Spanish and 3,319 others).

Density per square mile: 201.4.

President: Carlos P. Garcia.

Principal cities (est. 1958): Manila, 1,183,000 (seat of government, chief port); (est. 1952) Cebu, 175,950 (seaport); Quezon City, 159,730 (legal, future capital); Basilan, 141,640 (lumber); Bacolod, 126,200 (sugar); Zamboanga, 124,710 (seaport).

Monetary unit: Peso.

Languages: English, Tagalog, Bisayan, Spanish, Ilocano, Bicol.

Religions (census 1948): Roman Catholic, 82.9%; Aglipayan (Independent Philippine Catholic), 7.6%; Moslem, 4.1%; Protestant, 2.3%; others, 3.1%.

STATUS IN THE WORLD TODAY

The foreign policy of the Philippines is pro-Western and anti-Communist, the new republic being a member of the Southeast Asia Treaty Organization. Emerging as an independent state after centuries of Spanish and American rule, the Philippine people have chosen to build a democratic society in close alliance with the United States. Militarily, the islands have relied for external defense on the United States,

which secured the leasehold of a number of bases when independence was granted. In 1951 a mutual defense pact was signed.

The most pressing problems facing the young republic are economic. They result largely from two causes: the great destruction wrought during World War II and the gradual imposition of tariffs on Filipino goods entering the American market. As long as the islands were administered by the United States, Filipino goods entered duty-free. Since the grant of commonwealth status to the islands in 1935, however, it has been United States policy gradually to end this preferential tariff treatment. Consequently, Filipino exports have been sharply reduced. Efforts are being made to offset this by stimulating the domestic production of commodities formerly imported and by diversification of agriculture. But import needs continue high and capital for domestic economic development is short. The United States has given substantial aid, the latest being an additional \$125 million loan, but the solution to the quest for economic independence is not yet in sight.

HISTORY AND GOVERNMENT. Fernando Magellan, the Portuguese navigator in the service of Spain, discovered the Philippines on March 16, 1521, and twenty-one years later a Spanish exploration party named the group of islands in honor of Prince Philip, later Philip II of Spain. Spain retained possession of the islands for the next 350 years.

The Philippines were ceded to the United States in 1899 by the Treaty of Paris after the Spanish-American War. Meanwhile the Filipinos, led by Emilio Aguinaldo, had declared their independence. They continued guerrilla warfare against U. S. troops until the capture of Aguinaldo in March, 1901. By July, 1902, peace was established except among the Moros.

The first U. S. civilian Governor-General was William Howard Taft (1901-04). The Jones Law (1916) provided for the establishment of a Philippine Legislature composed of an elective Senate and House of Representatives. The Tydings-McDuffie Act (1934) provided for complete Philippine independence in 1946. Under a Constitution approved by the people of the Philippines May 14, 1935, the Commonwealth of the Philippines was inaugurated on Nov. 15 under the presidency of Manuel Quezon y Molina, who was re-elected in 1941.

The Philippines were invaded by Japanese troops on Dec. 8, 1941 (Philippine time), and after the fall of Bataan and Corregidor, President Quezon and his government fled to Washington, D.C. U. S.

forces led by Gen. Douglas MacArthur re-invaded the islands in Oct., 1944, and after the liberation of Manila (Feb., 1945), Sergio Osmeña, who had succeeded to the presidency on the death of Quezon (Aug. 1, 1944), re-established the government.

Brig. Gen. Manuel A. Roxas y Acuña, who defeated Osmeña in the elections of April, 1946, became first head of the new independent republic. He died April 15, 1948, and was succeeded by the Vice President, Elpidio Quirino. The latter was re-elected on Nov. 8, 1949, but lost a second bid for re-election to Ramón Magsaysay, who took office on Dec. 30, 1953. On his death in a plane crash March 17, 1957, Magsaysay was succeeded by Vice Pres. Carlos P. Garcia.

ECONOMIC CONDITIONS. *Agriculture and Industry.* Agriculture is the chief industry. Average size of the farms is ten acres, but there are many large plantations. Rice (palay) is the staple native food cereal, but production is insufficient to meet home consumption. The Philippines normally produce about half the world copra supply and a large proportion of the abacá (Manila hemp) supply; they are also a leading source of sugar and sugar products, normally the chief export. Other crops include sisal, kapok, cotton, corn, tobacco, coffee, rubber, cacao, citrus fruits, and bananas. Livestock on March 31, 1956, included 3,590,580 carabao, the farmers' all-purpose animal, 836,080 cattle, 214,140 horses, and 5,765,370 hogs.

There are no large industrial establishments and activity is limited primarily to the processing of agricultural and forest products, such as sugar cane, coconuts, tobacco, abacá, and timber. Preparation of fine embroideries is an important industry.

In 1956, the chief exports were copra and other coconut products (39%), sugar (22%), wood (11%), and abacá (8%). Leading customers were the United States (54%), Japan (18%), and the Netherlands (9%); leading suppliers, the United States (59%), Japan (10%), and Indonesia (4%). Leading imports were machinery and vehicles, cotton and manufactures, iron and steel, and petroleum and products.

NATURAL FEATURES AND RESOURCES. The Philippines are an archipelago of approximately 7,083 islands lying about 500 miles off the southeast coast of Asia. The northernmost island, Y'Ami, is sixty-five miles from Formosa, while the southernmost, Saluag, is thirty miles east of Borneo. Only 466 of the islands have an area of more than one square mile, and only 2,441 have names. The largest islands are Luzon in the north (40,814 sq. mi.), Mindanao in the south (36,537 sq. mi.), Samar (5,124 sq. mi.), Negros (4,903 sq. mi.), and Palawan (4,550 sq. mi.).

Minerals, Forests and Fisheries. The Philippines possess large but relatively undeveloped mineral resources. Most important are gold, silver, iron ore, copper ore, chromite, manganese ore, lead, and zinc.

Poland (People's Republic)

(Polska Rzeczpospolita Ludowa)

Area: 120,442 square miles.

Population (est. 1957): 28,300,000.

Density per square mile: 23.5.

Chairman of State Council: Aleksander Zawadzki.

Premier: Josef Cyrankiewicz.

Principal cities (est. 1957): Warsaw, 1,068,900 (capital); Łódź, 687,300 (industrial center); Wrocław (Breslau), 396,100 (former German industrial center); Kraków, 469,400 (commercial center); Poznań, 383,300 (farm products).

Monetary unit: Złoty.

Language: Polish (more than 90%).

Religions: Roman Catholic, Jewish, Protestant.

STATUS IN THE WORLD TODAY

Poland is the most unusual of Soviet satellites in that it has managed, despite Russian criticism, to substitute its own brand of communism for the Moscow variety and yet avoid the military intervention which Hungary suffered and the violent propaganda attacks which assailed Yugoslavia. Poland remains a dictatorship ruled by a single party, but it is a more benevolent dictatorship than in any other Communist-run country. Władysław Gomułka rose to power in 1956 in a bloodless revolution because the Polish people supported his policy of national self-determination, democratic political reforms, and restoration of the health of the political economy. There has been some retreat from the extreme positions of freedom won by the people in 1956, but the fact that the people can still grumble at the tops of their voices clearly distinguishes them from their less fortunate neighbors.

Because of its geographical position, Poland cannot be entirely free of Soviet domination. Russian troops are stationed there to maintain the supply lines to the occupation forces in East Germany. And Poland's present frontiers have been created unilaterally by the Soviet Union and are not recognized by the Western powers. Consequently, Poland, having been forced to cede territory in the east to Russia, can look only to Russia to help it keep the German territory it received in return in the West. Having been partitioned and oppressed so often by both countries, the Poles dislike or hate the Germans and Russians in about equal proportion.

In its foreign relations the Polish government has little leeway in making independent decisions. The most the regime has been able to accomplish is to arrange small, short-term loans with the United States. Economically, it needs larger, long-term assistance. The former Stalinist policy of concentrating on heavy industry meant home construction and agriculture were starved for funds. Insufficient mechanical improvement in agriculture, coupled with forced collectivization resulted in a drop in farm production. Compulsory exports, until 1953, of coal, Poland's chief marketable material, to Russia at 1/12 of world prices robbed the country of possibilities of profitable trade and accumulation of convertible currency. Since 1956 the government has been trying to alleviate the worst of economic evils. Non-productive, wasteful projects have been scrapped. Poland is no longer exploited in its export of coal and other items to Russia. Collectivization has been stopped and most of the existing collective farms disbanded. But the problems of economic rehabilitation are still staggering.

HISTORY. Little of certainty is known about Polish history before the eleventh century when King Boleslaus I (the Brave) ruled over Bohemia, Saxony, and Moravia. Mongol invasions in 1241 and 1259 were repelled. Meanwhile, the Teutonic Knights were erecting in Prussia a state which included part of Poland and barred the latter's access to the Baltic. The Knights were defeated by Władislaus II at Tannenberg in 1410 and became Polish vassals and Poland regained a Baltic shoreline.

Poland reached the peak of its power between the fourteenth and sixteenth centuries. Poles scored military successes against the Russians and Turks. In 1683, King John Sobieski turned back the Turkish tide near Vienna.

These successes did not halt the process of decline which resulted from the lack of strong central authority, and Prussia, Russia, and Austria were able to carry out a first partition of the country in 1772, a second in 1792 and a third in 1795-96. For more than a century thereafter, there was no Polish state, but the Poles never ceased their efforts to regain their independence. World War I found them fighting unhappily on both sides.

The independence of Poland was formally proclaimed in Nov., 1918, and Marshal Josef Pilsudski was confirmed in office as President. In 1919, Ignace Paderewski, famous pianist and patriot, became the first Premier. Russia attacked Poland in 1920 but the Poles, under Marshal Pilsudski and aided by the French, defeated the invaders. On May 12, 1926, Marshal Pilsudski seized

complete power in a coup d'état and ruled the country dictatorially until his death on May 12, 1935, when he was succeeded by Marshal Edward Smigly-Rydz.

Despite a 10-year nonaggression pact signed with Germany in 1934, Hitler attacked Poland on Sept. 1, 1939. Russian troops invaded from the east Sept. 17, 1939, and on Sept. 28 a German-Russian agreement was signed dividing Poland between Russia and Germany. W. Raczlewicz formed a government-in-exile in France with Gen. Wladyslaw Sikorski as Premier; this government moved to London after France's defeat in 1940.

All of Poland was occupied by Germany after the Nazi attack on the Soviet Union in June, 1941. On July 30, 1941, Poland concluded an agreement with the U.S.S.R. voiding all German-Soviet agreements effected after Sept. 1, 1939.

The legal Polish government soon fell out with the Russians, however, and in July, 1944, a Communist-dominated Polish Committee of National Liberation received Soviet recognition. Moving to Lublin after that city's liberation, it proclaimed itself the Provisional Government of Poland on Dec. 31, 1944. Some former members of the Polish Government in London joined with the Lublin government to form the Polish Government of National Unity on June 28, 1945. Great Britain and the United States recognized this government on July 5, 1945.

On Aug. 2, 1945, in Berlin, Prime Minister Attlee, President Truman and Generalissimo Stalin established a new *de facto* western frontier for Poland, along the rivers Oder and Lausitzer Neisse, pending a final peace treaty. On Aug. 16 the Soviet Union and Poland signed a treaty delimiting the Soviet-Polish frontier. Under these agreements Poland was shifted westward. In the east it lost 69,860 square miles with 10,772,000 inhabitants; in the west it gained (subject to final peace conference approval) 38,986 square miles with a pre-war population of 8,621,000.

GOVERNMENT AND DEFENSE. The 1952 Constitution is based on that of the U.S.S.R. The supreme organ of state authority is the Sejm, composed of 425 members elected for four years by all citizens over 18.

ECONOMIC CONDITIONS. *Agriculture.* Poland remains essentially an agricultural country: the areas now under *de facto* Polish administration in the west accounted for 25% of Germany's pre-war food production. Farm lands lost to the Soviet Union were considerably larger in area than those gained from Germany.

Industry. Industrial facilities, although severely damaged during World War II,

were not greatly affected by territorial concessions to the U.S.S.R., with the exception of the Lwów area. On the other hand, important German industrial areas, especially Silesia and the city of Stettin, are located in the territories under *de facto* Polish administration. As a result, post-war Poland has a much larger industrial potential. Almost all industries have been nationalized or placed under state control, and a planned economy has been introduced as part of the government's drive to make Poland an industrial nation.

Trade. Foreign trade is largely conducted by government bodies under the terms of numerous trade agreements with other nations. Major exports in 1954 were coal and coke, other raw materials, and semi-manufactures and agricultural products (mainly bacon and ham). Major imports were machinery, textiles, chemicals, and mineral products.

NATURAL FEATURES AND RESOURCES. Most of Poland is a plain with no natural boundaries except the Carpathian Mountains on the south and the Oder and Neisse Rivers on the west.

The acquisition of large coal deposits in German Silesia combined with much larger reserves in the southwestern region, makes Poland one of the world's leading coal producers. Iron ore deposits are located in the Kielce and Radom districts and in German Silesia (metal content 34%). Zinc and lead ores are located chiefly in Upper Silesia and the voivodships of Kielce and Kraków. Pre-war Poland's principal oil-producing areas, Boryslaw-Drohobycz, are in the territory ceded to the Soviet Union; Among other deposits, Poland possesses copper, sulfur, chalk, clay, kaolin, marble, and granite.

Portugal (Republic) (República Portuguesa)

Area: 35,358 square miles.

Population (est. 1958): 8,980,000 (practically all Portuguese).

Density per square mile: 25.4.

President: Americo Deus R. Tomaz.

Premier: António de Oliveira Salazar.

Principal cities (census 1950): Lisbon, 783,226 (capital, seaport); Oporto, 281,406 (seaport, port wine); Setúbal, 44,235 (seaport, sardines); Coimbra, 41,977 (university); Funchal (in Madeira Islands), 37,035 (Madeira wine).

Monetary unit: Escudo.

Language: Portuguese.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Portugal, long an ally of Great Britain, is on the side of the Free World in the current cold war and is a member of the

North Atlantic Treaty Organization, which it joined in April, 1949. Situated in a vitally important geographical area on the Western periphery of Europe, the country is a kind of fixed aircraft carrier. Although there has been criticism about the logic and wisdom of including Portugal, a dictatorship, among the nations of Free Europe in NATO, it is said that support for the policy of containment of communism must be sought wherever it can be found. Defenders of the regime—as in other dictatorships—say that while it is admittedly opposed to democratic and liberal ideas, it has brought economic and political stability to Portugal. The opposition candidate for the Presidency in the elections of June, 1958, Lt. Gen. Humberto Delgado, deemed it necessary, after being stripped of his military titles, to seek refuge in the Brazilian embassy and then go into exile.

HISTORY AND GOVERNMENT. Portugal was a part of Spain until it won its independence in the middle of the twelfth century. King John I (1385-1433) unified his country at the expense of the Castilians and the Moors of Morocco. The expansion of Portugal was brilliantly coordinated by John's son, Prince Henry, surnamed the Navigator. In 1488 Bartholomew Diaz reached the Cape of Good Hope, proving that the Far East was accessible by sea. In 1498 Vasco da Gama reached the western coast of India. By the middle of the sixteenth century the Portuguese Empire included West and East Africa, Brazil, Persia, Indo-China, and Malaya.

In 1581 Philip II of Spain invaded Portugal and held her captive for sixty years. There followed a catastrophic decline of Portuguese commerce. Courageous and shrewd explorers, the Portuguese proved to be inefficient and corrupt colonizers. By the time the Portuguese dynasty was restored in 1640, Dutch, English, and French competitors began to seize the lion's share of the world's colonies and commerce. Portugal retained Angola and Mozambique in Africa and Brazil (until 1822), but her place as an imperial power was lost forever.

In the first half of the nineteenth century Portugal's political history was distinguished by dynasty quarrels and factional strife. The corrupt King Carlos, who ascended the throne in 1889, made João Franco the Premier with dictatorial power in 1906. In 1908 Carlos and his heir were shot dead on the streets of Lisbon. The new king, Manuel II, was driven from the throne in the Revolution of 1910. Portugal was proclaimed a republic with a system modeled upon that of France.

Traditionally friendly to Great Britain, Portugal entered World War I on the Allies' side, and Portuguese troops fought on the Western Front and in Africa. In 1926 a revolution drove out the President, and six years later the Salazar dictatorship began.

Dr. António de Oliveira Salazar, founder of the National Union in 1930, has been Premier and dictator of Portugal since 1932. The constitution, adopted by plebiscite in 1933, and amended in June, 1959, provides for a President chosen for a term of 7 years by an electoral college made up of members of the National Assembly and the Corporative Chamber and of representatives from each metropolitan district and overseas province. The National Assembly has 130 members elected by popular vote for 4 years and the Corporative Chamber represents various economic and social groups in the nation. The Premier is appointed by the President but neither the Premier nor his Cabinet are responsible to the National Assembly.

ECONOMIC CONDITIONS. Portugal's corporate state has a planned economy in which each producing unit regulates itself in the interest of the nation. Corporate units have been established in agriculture, industry, and finance.

Sixty per cent of Portugal's people are engaged in agriculture. Although wheat is the leading crop, it is insufficient to meet domestic needs, and grain must be imported. One of the world's leading wine-makers, Portugal produces two famous kinds—Port in the vicinity of Oporto, and Madeira in the islands of the same name. In olive oil production, Portugal usually ranks third in the world.

Leading crops are wheat, barley, and oats.

In 1957 the principal customers were continental EPU dependencies (30%), continental EPU countries (28%), Britain (14%), U. S. and Canada (10%); chief suppliers, continental EPU countries (45%), continental EPU dependencies (13%), Britain (13%), U. S. and Canada (11%). The chief exports were cork (18%), wine (12%), and fish (11%), mainly sardines.

NATURAL FEATURES AND RESOURCES. Portugal is crossed by many small rivers, and also by three large ones which rise in Spain, flow into the Atlantic, and divide the country into three geographic areas. The Minho (Miño in Spain) River, part of the northern boundary, cuts through a mountainous area that extends south to the vicinity of the Douro (Duero) River. South of the Douro the mountains slope to the plains about the Tagus (Tejo) River. The remaining division is the southern one of Alentejo.

The Azores, stretching over a distance of 400 miles in the Atlantic, consist of 9 islands divided into three groups, with total area of 888 square miles. The nearest continental land is Cape da Roca, Portugal, which lies 800 miles to the east. The Azores are an important station on Atlantic air routes, and both Britain and the United States established air bases there during World War II. Madeira, consisting of two inhabited islands, Madeira and Porto Santo, and two groups of uninhabited islands, lies in the Atlantic about 535 miles southwest of Lisbon.

Mineral resources have not been fully developed, but wolfram, coal, iron ore, copper, manganese, iron pyrites, lead, tin, and other ores are found.

Portugal is one of the world's leading producers of cork.

The fishing industry is a basic part of the national economy. Of special importance is the sardine industry centered at Setúbal. The total fishing catch in 1955 was 390,600 metric tons.

PORTUGUESE OVERSEAS TERRITORIES

AFRICA

	Area, sq. mi.	Population, est. 1955
Angola	481,351	4,392,000*
Cape Verde Islands	1,557	172,000
Mozambique	297,731	6,234,000*
Portuguese Guinea	13,948	559,000*
São Tomé and Príncipe	372	58,000

ASIA

Macao	6	200,000
Portuguese India	1,538	644,000
Timor	7,332	478,688

* Estimated 1958.

The status of the Portuguese overseas territories is fixed by the Colonial Act of July, 1930, included in the Constitution approved March 19, 1933, and revised in 1951. Each territory has a Governor or Governor General, appointed by the Council of Ministers for an initial 4-year term and responsible to the Minister of Overseas Territories at Lisbon. Each territory has financial and administrative autonomy.

ANGOLA (Portuguese West Africa)—Status: Overseas territory.

Capital: Loanda (pop. 1955: 189,590).

Governor General: José Agapito da Silva Carvalho.

Chief exports (1956): coffee (49%), diamonds (10%), fish meal (6%).

Agricultural exports (1956): coffee, 89,880 metric tons; sisal, 37,283 tons; cotton, 5,908 tons; sugar, maize, palm kernels and oil, peanuts, rice.

Minerals: diamonds (1956: 743,930 carats), lignite, copper.

Forest products: beeswax, timber.

Manufactures: sugar, palm oil, whale oil, fish oil.

Angola stretches along the west African coast for about 1,000 miles from Belgian Congo to the Cunene River. Outside of a coastal plain varying in width from thirty to 100 miles, the area is part of the great African plateau. The Angola coast and the Congo River were explored by the Portuguese in 1482-85, and Loanda was founded in 1576. A legislative council with an elected majority was established in Angola in 1955.

Angola is primarily an agricultural country. Its varied altitude enables it to produce both tropical and temperate crops. Excellent grazing land exists in many parts of the colony. The chief ports are Loanda and Lobito. The great majority of the population are of Bantu-Negro stock, mixed in the Congo district with pure Negro.

CAPE VERDE ISLANDS—Status: Overseas territory.

Capital: Praia (population 9,980).

Governor: Manuel Marques Abrantes Amaral.

Foreign trade (1956): exports, 288,453,000 escudos; imports, 308,242,000 escudos. Chief exports: ships stores (92%), preserved fish.

Agricultural products: coffee, millet, castor oil, oranges, hides.

This group of fourteen volcanic islands lying off the west African coast was discovered in 1456 by the Venetian captain Alvise Cadamosto, in the service of Prince Henry the Navigator. The island of São Vicente is an important fueling station on the South American route. The vast majority of the inhabitants are mulattoes and Negroes—descendants of slaves brought to the islands from Africa by early settlers. Public slavery was abolished in 1854, and private slavery in 1876.

MOZAMBIQUE (Portuguese East Africa)—Status: Overseas territory.

Capital: Lourenço Marques (population 93,265).

Governor General: Gabriel Maurício Teixeira.

Foreign trade (1956): exports, 1,515,400,000 escudos; imports, 2,736,322,000 escudos. Chief exports: cotton (20%), sugar (16%), copra, sisal, cashew nuts.

Agricultural exports (1957): cotton, 32,000 metric tons; sugar, 164,000 tons; copra, 51,800 tons; (1956) sisal, 27,940 tons; cashew nuts, 37,974 tons; tea, 6,276 tons.

Minerals: gold, coal, graphite, mica.

Forest products: mangrove bark, timber.

Mozambique, stretching for about 1,430 miles along Africa's southeast coast, was discovered by Vasco da Gama in 1498, although the Arabs had penetrated into the area as early as the 10th century A.D. It was first colonized in 1505, and by 1510 the Portuguese were masters of all the former Arab sultanates on the east

African coast. The boundaries with British Central and South Africa were delimited in 1891, and with Tanganyika Territory in 1886 and 1890.

Agriculture is the chief industry. There are many large plantations, some of which are partially mechanized.

Ninety-nine per cent of the inhabitants are native Africans of the Bantu Tribes. The chief ports are Lourenço Marques and Beira, which is also the port for Rhodesia.

PORTUGUESE GUINEA—Status: Overseas territory.

Capital: Bissau (population 18,309).

Governor: Silva Tavares.

Foreign trade (1956): exports, 203,208,-366 escudos; imports (1954), 172,115,066 escudos. Chief exports: peanuts (53%), coconuts.

Agricultural products: peanuts (exports 1956: 34,027 metric tons), coconuts, copra, rice, palm oil.

Forest products: timber, wax, rubber.

This area, lying on the west African coast and almost surrounded by French West Africa, was discovered in 1446 by the Portuguese Nuno Tristão and was separated from the colony of the Cape Verde Islands in 1879. It consists of a low-lying coastal region and sixty islands off the coast. The country is undeveloped economically, and most of the natives are farmers. There are no railways, but navigable rivers totaling over 1,000 miles are important trade arteries.

SÃO TOMÉ AND PRÍNCIPE—Status: Overseas territory.

Capital: São Tomé (population 7,813).

Governor: António Pires Barata.

Foreign trade (1956): exports, 172,977,-000 escudos; imports, 132,481,000 escudos. Chief exports: cacao (70%), copra (11%), coconuts, coffee.

Agricultural products: cacao, coffee, coconuts, copra, palm oil.

These volcanic islands, lying in the Gulf of Guinea about 150-175 miles off the west African coast, were discovered by the Portuguese in 1471. Most of the early inhabitants were convicts and Jews from Portugal and slaves from Brazil and the mainland, but the bulk of the present inhabitants are Negro contract laborers from the mainland and Cape Verde, engaged to work cacao plantations.

MACAO—Status: Overseas territory.

Capital: Macao (population 166,544).

Governor: Joaquim Marques Esparteiro.

Chief exports: fish, cement, preserves.

Manufactures: cement, preserves, fire-crackers, vegetable oils, metal products.

Macao comprises the peninsula of Macao and the two small islands of Taipa and Colôane on the South China coast, about thirty-five miles from Hong Kong. Estab-

lished by the Portuguese in 1557, it is the oldest European outpost in the China trade, but Portugal's sovereign rights to the port were not recognized by China until 1887, and its boundaries are still not delimited. The port has been eclipsed in importance by Hong Kong, but it is still a busy distribution center, and also has an important fishing industry employing over 40,000 people. It is notorious for its opium trade and gambling houses. Most of the population is Chinese.

PORTUGUESE INDIA—Status: Metropolitan province.

Capital: Panjim (Nova Gôa) (population 31,950).

Governor General: Paulo Bénard Guedes.

Foreign trade (1956): exports, 82,741,-364 ruplas* (40% to Japan); imports, 114,051,886 rupias (19% from Britain). Chief exports: iron ore (71%), manganese ore (25%), cashew nuts.

Agricultural products: cashew nuts, coconuts, spices.

Minerals (exports 1956): iron ore, 2,046,-770 metric tons; manganese ore, 162,347 tons.

* 1 rupla = 5.97 escudos.

The area consists of Gôa and 3 islands on the Malabar coast of India; Damão and the territories of Dadará and Nagar-Aveli, on the Gulf of Cambay; and Diu, with the continental territories of Gocola and Simbor, on the coast of Gujarat. Gôa, captured in 1510 by the Portuguese, later became capital of the whole Portuguese empire in the east. The native population is largely Hindu. The Indian government has repeatedly pressed for the end of Portuguese rule here and as a result Indian-Portuguese relations have been very strained in the last few years.

TIMOR—Status: Overseas territory.

Capital: Dili (population 7,000).

Governor: Cesar Maria de Serpa Rosa.

Foreign trade (1956): exports, 38,687,000 escudos (34% to the Netherlands); imports, 56,598,000 escudos (28% from Portugal). Chief exports: coffee (80%), rubber.

Agricultural exports (1956): coffee (1,120 metric tons), rubber (231 tons), copra (1,114 tons).

Forest products: sandalwood, wax.

Portuguese Timor consists of the eastern half of the island of Timor in the Malay Archipelago, with the territory of Ambeno and two neighboring islands. It was first settled by the Portuguese early in the 16th century. In 1859 the island was divided between Portugal and the Netherlands; later boundary adjustments were made in 1904. Fishing and copra manufacture are important; trade is mostly in the hands of Chinese, Malaysians, and Arabs. Timor was occupied by Dutch and Australian troops in Dec., 1941, and by the Japanese in Feb., 1942.

Rumania (People's Republic)

(Republica Populara Româna)

Area: 91,699 square miles.

Population (census 1957): 17,829,000 (1948: Rumanian, 85.7%; Magyar, 9.4%; German, 2.2%; Jews, 0.9%; others [Turkish, Ruthenian, Bulgarian, Gypsy, Ukrainian] 1.8%).

Density per square mile: 194.5.

Chairman of Presidium: Ion Gheorghe Maurer.

Premier: Chivu Stoica.

Principal cities (census 1956): Bucharest, 1,236,906 (capital); Cluj, 154,752 (Transylvanian industrial center); Timisoara, 142,251 (western commercial center); Stalin (Brasov), 123,882 (industrial center); Ploesti, 114,560 (oil).

Monetary unit: Leu.

Languages: Rumanian, Hungarian, German, Turkish.

Religions (est. 1947): Eastern Orthodox, 81%; Greek Catholic, 9%; Roman Catholic, 7%; others, 3%.

STATUS IN THE WORLD TODAY

Rumania, formerly one of the most anti-Communist of all East European countries, is today outwardly one of the most docile of the Soviet satellites. Although the U.S.S.R. has absorbed the long-disputed region of Bessarabia, it has restored Rumanian sovereignty over Transylvania, which was taken from Hungary after World War I, but then reapportioned between the contending states by Hitler in 1940. The policies of the Communist party have been relatively cautious and, although not easy to bear, have fallen far short of the massive attempt at large-scale social transformation undertaken in Hungary and have also lacked the vicious terroristic character of Communist rule practised in that neighboring country.

One reason for the cautious policies may be the relatively small number of Rumanian Communists—they counted fewer than 500 adherents in 1944. This has meant the absence of a cadre of well-trained party members to fill government jobs and may well be the reason that the party leadership has been far less affected by purges and show trials than any other satellite Communist party. Rumania's strategic position is another reason why the U.S.S.R. is interested in keeping the peace there. It controls a long navigable stretch as well as the mouth of the Danube, and its oil deposits near Ploesti make it an important source of supply of a commodity not otherwise abundant in that part of the world.

Concessions from the Russians in the form of economic assistance have helped to alleviate a number of chronic economic difficulties. If Rumania is not a shining example of Communist achievements and

displays far less militancy in imitating and supporting the Soviet Union than East Germany or Czechoslovakia, it is not a hotbed of troubles either. It is an island of relative tranquillity in an otherwise agitated part of the Soviet empire.

HISTORY AND GOVERNMENT. Most of Rumania was the Roman province of Dacia from about A.D. 100 to 275. From the sixth to the twelfth centuries, wave after wave of barbarian conquerors—Vlachs, Bulgars, and others—passed over the area. It became a kingdom in 1881.

The gains of World War I, making Rumania the largest Balkan state, included Bessarabia, northern Transylvania, and Bukovina. The Banat, a Hungarian area, was divided with Yugoslavia.

In 1926 Crown Prince Carol renounced his rights to the throne, and when King Ferdinand died on July 20, 1927, Carol's son, Michael (Mihal) became King under a regency. However, Carol returned from exile in 1930, was crowned King Carol II, and gradually became a powerful political force in the country. On Feb. 10, 1938, he abolished the democratic Constitution of 1923. On June 21, 1940, the country was reorganized along Fascist lines, and the Fascist Iron Guard became the nucleus of the new totalitarian party. On June 27, the Soviet Union occupied Bessarabia and northern Bukovina. By the Axis-dictated Vienna Award of 1940, two-fifths of Transylvania went to Hungary, after which the King dissolved Parliament and granted the new Premier, Ion Antonescu, full power. Carol then abdicated and went into exile. Rumania subsequently signed the Axis Pact on Nov. 23, 1940, and the following June joined in Germany's attack on the U.S.S.R., reoccupying Bessarabia. Following the invasion of Rumania by the Red Army in Aug. 1944, King Michael led a coup d'état which ousted the Antonescu government. An armistice with the U.S.S.R. was signed Sept. 12 in Moscow.

Elections held Nov. 19, 1946, resulted in a victory for the Communist-dominated government bloc. Michael abdicated on Dec. 30, 1947, and thereafter the nation was declared a "people's republic."

ECONOMIC CONDITIONS. Rumania is predominantly agricultural, with about 80 per cent of the population engaged on the soil. In wheat, rye and other grains, it is one of the richest countries of southeastern Europe. The largest acreage is usually devoted to corn and wheat. Other crops are flax, hemp, fruit, vegetables, potatoes, sugar beets, sunflower seeds, tobacco, and grapes. Stock raising is also important. In 1958, a 226-mile pipeline connecting Rumanian natural gas fields with Hungarian centers was opened.

Agrarian reform measures effected in 1945 provided for the distribution of estates over fifty hectares (123.6 acres) in lots of 12½ hectares to each peasant.

Industrialization made considerable progress under a 5-year plan covering the years 1951-55, which emphasized the iron, steel, metal, machinery, and other heavy industries. The Soviet half-share in Soviet-Rumanian joint companies, which control the major industries, was sold to Rumania in 1954. Industries directly connected with agriculture, such as flour milling, distilling, and brewing, are still of basic importance. Probably the most important industries are food processing, textiles, metals, chemicals, wood, and paper. All but small business enterprises are nationalized.

Foreign trade is under complete government control. Principal exports are petroleum products, cereals and cereal products, wood and wood products. Leading imports are iron and manufactures, machinery and motors, vegetable fibers and products.

NATURAL FEATURES AND RESOURCES. The Carpathian Mountains divide Rumania's upper half from north to south and connect near the center of the country with the Transylvanian Alps, running east and west.

North and west of these ranges lies the Transylvanian plateau, and to the south and east are the plains of Moldavia and Walachia. In its last 190 miles, the Danube River flows through Rumania only. It enters the Black Sea in northern Dobruja, just south of the border of the Soviet Union.

By far the most valuable of Rumanian minerals is oil, produced chiefly in the Ploesti region about thirty-five miles north of Bucharest.

Natural gas from Transylvania is the second most important mineral. Other important minerals are iron ore, lignite, copper, gold, and silver. Uranium deposits have been reported.

El Salvador (Republic) (República de El Salvador)

Area: 8,260 square miles.*

Population (est. 1958): 2,434,000.

(mestizo, 78%; Indian, 11%; white, 11%).

Density per square mile: 298.1.

President: José María Lemus.

Principal cities (est. 1957): San Salvador, 212,542 (capital); Santa Ana, 67,255 (coffee); San Miguel, 32,204 (coffee, henequén).

Monetary unit: Colón.

Language: Spanish.

Religion: Roman Catholic.

* Land area: 8,165 square miles.

STATUS IN THE WORLD TODAY

El Salvador, smallest of the twenty-one American republics, is a democracy which has enjoyed relative political and economic stability during the past ten years. Although most of the land is held by a few score wealthy families and cultivated by very poor workers, the country has been undergoing a moderate social revolution with a program of irrigation and the settlement of small farmers on reclaimed land, enactment of labor and social security legislation, and the growth of a labor movement. It is also one of the most densely populated countries in this hemisphere and has started new roads to open up unexploited land along the Pacific coast to relieve the population pressure elsewhere.

For the past twenty years El Salvador has had a balanced budget and a favorable balance of trade, although the latter has been growing smaller with the fall of coffee prices on the world market. The government now has a ten-year, \$156-million development program to diversify agriculture and build schools, homes, and light industry. A new tariff law was enacted in 1958 to encourage domestic manufacturing, and in the past five years more than 100 industrial plants have been established as power facilities have been expanded.

HISTORY AND GOVERNMENT. Pedro de Alvarado, a lieutenant of Cortez, conquered El Salvador in 1525. El Salvador struck out as an independent republic in 1839 after the dissolution of the Central American Union.

In Jan., 1931, the first free election in 20 years brought in Arturo Araujo as President. He was overthrown before the year was over. General Maximiliano Hernández Martínez, his successor, remained in power until May, 1944, when a general strike forced his resignation. The next regime, also militarist-led, lasted only five months, and was succeeded March 1, 1945, by a regime headed by Salvador Castañeda Castro, who was ousted Dec. 14, 1948, by a revolutionary junta. Major Oscar Osorio, one of the junta's members, was named President in the March, 1950, elections. Col. José María Lemus was elected to succeed him in the March 1956 elections.

The Constitution provides for a President, popularly elected for six years and ineligible to succeed himself, and a unicameral legislature elected by universal popular vote for 2 years.

Mestizos (mixed white and Indian) are the predominant racial group. There are no tribal Indians.

ECONOMIC CONDITIONS. El Salvador is one of the most intensively cultivated countries in Latin America. Coffee, which accounts for 79 per cent of the total exports, is controlled in volume by a commission of officials and planters. Cotton is second in importance. In January, 1959, El Salvador followed Guatemala and Nicaragua in ratifying the Central American Common Market Treaty, thereby eliminating tariffs on a specified list of commodities.

El Salvador's largest national enterprise, the Lempa river hydroelectric project, began partial operation in 1953.

NATURAL FEATURES AND RESOURCES. Most of El Salvador is a fertile volcanic plateau about 2,000 feet high. There are several volcanoes, some still active, and many lovely crater lakes. It is the only Central American country without an Atlantic coastline.

Gold, silver, coal, copper, iron, zinc, mercury, and sulfur are the nation's chief minerals.

Forest resources, much smaller than in other Central American states, include dyewood, mahogany, cedar, and walnut. El Salvador is a leading source of balsam.

San Marino (Republic)

Area: 38 square miles.
Population (est. 1955): 14,000 (mostly Italian).

Density per square mile: 368.4.
Executive: two Regents selected every six months by the Grand Council.

Principal town: San Marino (est. pop. 2,000) (capital).

Monetary unit: Lira.
Language: Italian.
Religion: Roman Catholic.

HISTORY AND GOVERNMENT. San Marino, the oldest and smallest republic in the world, is one-tenth the size of New York City. It is entirely surrounded by Italy, in the Apennines near Rimini. According to tradition, San Marino was founded about A.D. 350 and had good luck for centuries in staying out of the interminable wars and feuds on the Italian peninsula.

San Marino hires its police and judges from Italy. It no longer confers titles for a consideration, but it does derive much revenue from the exporting of its postage stamps, which are changed often to keep philatelists buying. Other exports are barley, wine, and cattle, as well as building stone from Mount Titano.

Executive power is exercised by Regents, two of whom are appointed every six months from the popularly-elected Grand Council. In April, 1959, the Grand Council decided to grant women the vote in 1960.

Saudi Arabia (Kingdom)

Area: c. 617,760 square miles.

Population (est. 1956): 6,036,000.

Density per square mile: c. 9.8.

King: Saud ibn Abd al Aziz al Saud.

Prime Minister: Emr al Faisal.

Principal cities (est. 1956): Mecca, 200,000 (joint capital, religious center); Jidda, 160,000 (chief port); Riyadh, 150,000 (joint capital).

Monetary unit: Riyal.

Language: Arabic.

Religion: Moslem.

STATUS IN THE WORLD TODAY

Saudi Arabia, which receives most of its income in oil royalties from an American consortium and which has given the United States the right to maintain a large air base at Dhahran, has not followed the lead of some of its sister Arab states in accepting any sort of assistance from the Soviet Union. It is maintaining a policy of neutrality in the Arab world, although in 1957 it protested against Egypt's meddling in the internal affairs of other states and in turn was accused by Nasser of trying to prevent the union of Egypt and Syria and of plotting to assassinate him.

The huge income from oil has led to the beginnings, however small, of a social revolution in this feudal kingdom and has placed the emphasis on internal rather than foreign policy problems. Ninety per cent of its inhabitants receive no benefit from the oil riches, and almost nothing has been spent for public health, education, and other social services. A middle class, which never existed before, is springing up as a result of the oil industry and may bring about social change. In the feudal hierarchy itself there is one faction which wants to continue the old free-spending ways for the benefit of the rulers, while another believes that country should have some measure of financial stability and some modernization of governmental machinery. A financial crisis led to a palace revolution in March, 1958, and Crown Prince Faisal, the leader of the latter group, took control of the government and began to restore financial stability.

HISTORY AND GOVERNMENT. The kingdom of Saudi Arabia, which occupies most of the Arabian peninsula, is almost entirely the creation of King Ibn Saud (1882-1953). Its earlier history is that of Arabia. Descendant of earlier Wahhabi rulers, Ibn Saud seized the emirate of Riyadh in 1901, and set himself up as leader of the Arab nationalist movement. The united kingdom of Saudi Arabia was one of the original members of the U. N.

and joined the Arab League in 1945. King Ibn Saud died Nov. 9, 1953, and was succeeded by Saud (born 1905), the eldest of his many sons.

Saudi Arabia is a nearly absolute monarchy. A Council of Ministers headed by the Prime Minister was formed in Oct., 1953. Hejaz and Nejd are under separate administrations. Tribal organizations are influential. There is a small army. In March, 1958, King Saud turned over to his brother, Emir Faisal, full powers to lay down the state's internal, external, and financial policies, but he retained veto powers. There are no political parties.

The majority of the inhabitants are Bedouin—nomads following their flocks over the desert. The population is predominantly Sunni Moslem, and the religious law of Islam is the common law of the land. Mecca and Medina are the leading religious centers of Islam and the annual influx of pilgrims to those cities is the most important commercial activity outside the oil industry.

Saudi Arabia's desert climate restricts agriculture to the highlands of Asir and scattered oases. Dates are the staple crop; grain, fruits, and vegetables are also grown. Camels, sheep, and goats are raised and some animal products, such as hides, wool and ghee (clarified butter), are exported.

Oil, discovered in 1936 in the province of Al Hasa along the Persian Gulf, is produced by the U. S.-owned Arabian-American Oil Co. (Aramco). The main production centers are Dhahran, Abqaiq, Qatif, and Ain Dar. Production has skyrocketed since World War II. The company's expenditures and payroll are important invisible exports and oil revenues have greatly strengthened the financial position of the kingdom, which receives one-half the company's profits. The oilfields are connected by pipeline with the port of Sidon, Lebanon.

Siam. See Thailand

Spain (Nominal Monarchy)

(España)

Area: 194,945 square miles.

Population (est. 1958): 29,662,000 (Spanish, Basque, Catalan).

Density per square mile: 152.2.

Chief of State: Francisco Franco y Bahamonde.

Principal cities (est. Dec. 31, 1956): Madrid, 1,879,037 (capital); Barcelona, 1,431,753 (chief port, textiles); Valencia, 516,556 (silk, oranges); Seville, 412,307 (wines, iron ore); Saragossa, 281,866 (rail center); Málaga, 280,200 (seaport).

Monetary unit: Peseta.

Languages: Spanish, Basque, Catalan.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Although Spain is a dictatorship, its foreign policy is so dominated by one outstanding characteristic—unalterable opposition to communism—that it has become an ally of the United States in the cold war and is the site of important American naval and air bases. Because of Spain's favorable location in Western Europe, this is regarded by Western leaders as necessary strategy. Defenders of the policy that includes Spain as a military, but not ideological, ally point out that the choice of partners must be made on a realistic basis, as in the case of the Western democracies fighting with the U.S.S.R. against Nazi Germany. Critics claim that the cold war is essentially an ideological struggle between nations supporting and opposing the central idea of freedom, and that to include a dictatorship among the "free" nations weakens the meaning of such terms as "Free Europe" and the "Free World." In 1946, the U.N. General Assembly moved that Spain be barred from membership in the U.N. "until a new and acceptable government is formed." But nine years later, with the strong support of the Latin-American countries and the Arab League, the Assembly reversed its position and admitted Spain to membership.

Spain, predominantly agricultural, still finds it difficult to maintain a balance between production and consumption of foodstuffs. Although she has important mineral resources and raw materials, she has remained backward industrially and is faced with chronic financial difficulties. Since 1945 there has been progressive economic deterioration, the cost of living has risen stupendously and the gap between rich and poor widened. American financial aid in return for the lease of military bases has relieved to some extent what is basically a weak economic system. Despite this weakness, Franco maintains his regime because of his firm control of the Spanish army and, through the Falange, the totalitarian party, of police, secret police and trade unions. He is strongly supported by industrialists and financiers as well as by all Spaniards who fear communism and especially another civil war.

In the summer of 1959, Spain was finally admitted to the Organization for European Economic Cooperation (OEEC).

When Pres. Eisenhower visited Europe in August, 1959, he invited the Spanish Foreign Minister to London to discuss Spanish-American relationships with him there.

HISTORY AND GOVERNMENT. Spain, originally inhabited by Celts, Iberians, and Basques, became a part of the Roman Empire in 201 B.C., when it was

conquered by Scipio Africanus. In 412 A.D. the barbarian Visigothic leader, Ataulf, crossed the Pyrenees and ruled Spain, first in the name of the Roman emperor and then independently. In 711 A.D. the Moslems under Tariq entered Spain from Africa and within a few years completed the subjugation of the country. In 732 the Franks, led by Charles Martel, defeated the Moslems at Tours, thus preventing the further expansion of Islam in southern Europe. Internal dissension of Spanish Islam invited a steady Christian conquest from the north.

Aragon and Castile became the most important Spanish states from the thirteenth to the fifteenth century, in time absorbing all the other peoples of Spain. Aragon and Castile were consolidated by the marriage of Ferdinand II and Isabella I. The last Moslem stronghold, Granada, was captured in January, 1492, the same year in which Columbus, under the sponsorship of Isabella, discovered America. With Moslem control ended, Roman Catholicism was established as the official state religion. The Jews (1492) and the Moslems (1502) were expelled from Spain at the cost of incalculable suffering and loss of life.

In the era of exploration, discovery, and colonization Spain won tremendous wealth and a vast colonial empire. The conquest of Peru by Pizarro (1533) and of Mexico by Cortes (1519) brought great prosperity to the motherland. The Spanish Hapsburg monarchy, through a series of wars, diplomatic negotiations, and marriages, became for a time the most powerful in the world.

In 1588 Philip II sent his Invincible Armada to invade England, but its destruction cost Spain her supremacy on the seas and paved the way for England's colonization of America. Spain then sank rapidly to the status of a second-rate power, and never again played a major role in European politics.

In World War I Spain maintained a position of neutrality. In 1923 General Miguel Primo de Rivera became dictator. In 1930 Alfonso XIII revoked the dictatorship, but a strong antimonarchist and republican movement led to his abdication in 1931. The new Constitution declared Spain a workers' republic, broke up the large estates, separated Church and State, and secularized the schools. The 1936 elections returned a strong Popular Front majority with Manuel Azaña as President.

But political chaos persisted. On July 18, 1936, a conservative army officer in Morocco, Francisco Franco, led a mutiny against the government. The terrible civil war that followed lasted for three years and cost the lives of nearly a million men. It was, in effect, a dress rehearsal for

World War II. Franco was aided by Fascist Italy and Nazi Germany, while Soviet Russia helped the Loyalist side. Several hundred leftist Americans served in the Abraham Lincoln brigade on the side of the republic. The war came to an end when Franco took Madrid on March 28, 1939.

Franco (b. Dec. 14, 1892) is *Caudillo* (leader), Chief of State, Prime Minister, and head of the Falange Party. He pushes the Falange into the foreground or background at will depending upon political expediency. He appoints the cabinet. The *Cortés*, or parliament, established in July, 1942, may formulate legislation, but it must be satisfactory to the dictator.

In a referendum held July 6, 1947, the Spanish people approved a Franco-drafted succession law declaring Spain a monarchy again. Franco, however, is to continue as Chief of State and upon his death or incapacity the government and a Council of the Realm constituted by the law are to nominate as King "that person of royal blood who is most qualified by right," subject to the approval of the *Cortés*. The law reserves to Franco the right to nominate his own successor, subject also to the *Cortés* approval by two-thirds vote.

ECONOMIC CONDITIONS. Livestock included in 1955, 3,011,000 cattle, 16,312,000 sheep, and 5,980,000 hogs. Wool production in 1957 was 36,700 metric tons, greasy basis.

Leading customers in 1956 included Britain, West Germany, the United States, and France; leading suppliers, the United States, France, Britain, and West Germany. Leading exports in 1957 were iron ore and oranges. Principal imports were raw cotton, chemical products (especially fertilizer), petroleum, and vehicles.

Industry. The textile industry, concentrated in Catalonia, leads all others. The paper and chemical industries are also important, as well as pig iron and steel.

NATURAL FEATURES AND RESOURCES. Spain, less than ten miles from Africa at the closest point, and separated from France by the Pyrenees, is generally a broad plateau sloping to south and east and crossed by a series of mountain ranges and river valleys.

SPANISH COLONIAL POSSESSIONS

Country	Area, sq. mi.	Population, est. 1955
Morocco		
Ifni	579	62,000
Ceuta, Melilla, Alhucemas, Chafarinas and Peñon de Velez	82	144,000
Spanish Sahara	105,409	50,000
Spanish Guinea	10,831	212,000

Minerals. Spain's mineral wealth, second to agriculture in the national economy, yields millions of tons of ore, including coal, lignite, iron ore (metal content 50%), potash ore, lead ore, zinc ore, and mercury. Spain also produces copper, gold, magnesite, sulfur, tungsten, phosphates, silver, and, reportedly, uranium.

Forests and Fisheries. Spanish forests yield lumber, pine resins, cork, and esparto. Some 100,000 persons work in the fishing, canning, and related industries.

OUTLYING ISLANDS. Off Spain's east coast in the Mediterranean are the Balearic Islands, which total 1,936 square miles. The largest is Majorca. Sixty miles west of Africa are the Canary Islands.

Sudan, The (Republic)

Area: 967,500 square miles.

Population (census 1956): 10,262,506.

Density per square mile: 10.6.

President: Ibrahim Abboud.

Prime minister: Ibrahim Abboud.

Principal cities (census 1956): Omdurman, 113,551 (commercial center); Khartoum, 93,103 (capital); El Obeid, 52,382 (gum arabic); Wad Medani, 48,131 (cotton, livestock); Port Sudan, 47,650 (chief port).

Monetary unit: Sudanese pound.

Languages: English, Arabic, Nilotic and Negro tribal dialects.

Religions: Moslem (Sunni), pagan, Christian.

STATUS IN THE WORLD TODAY

The Sudan is a new republic where a military coup has ended parliamentary rule because of political and economic instability. Yet the army itself is divided, with the senior officers pro-Western and anti-Egyptian and the junior officers more nationalistic or leftist. But having finally achieved their independence, the Sudanese are determined to maintain it, so that their policy of neutrality extends not only to the West and to Soviet Russia but also to Nasser's Egypt. They are, however, cracking down on local Communists.

Having been ruled jointly by the British and the Egyptians for so long, the Sudan has no desire to become an Egyptian colony again, although there is considerable pro-Nasser sentiment in the northern, Moslem part of the country. Its present difficulties with Egypt stem from the use and diversion of the waters of the Nile River through the construction of the High Dam at Aswan. No agreement has yet been reached between the two countries on this project, which will flood some Sudanese territory. The Sudan controls the Upper Nile and, like Egypt, depends upon the Nile waters for its crops.

The Sudan's economic difficulties result mainly from its dependence on one export crop—cotton—and its failure to sell the 1956–57 crop and the subsequent pile-up of succeeding crops. It has been living on its reserve of consumer goods and, with a government deficit, has no funds for development. Early in 1959 it received \$30 million in aid from the U. S. and \$14 million from Britain. For some time it has rejected loans from the U.S.S.R. because it would have to spend the proceeds in the Communist bloc.

HISTORY. The early history of the Sudan (known as the Anglo-Egyptian Sudan between 1898 and 1955) is connected with that of Nubia, where a powerful local kingdom was formed in Roman times with its capital at Dongola. After conversion to Christianity in the sixth century A.D., it joined with Ethiopia and resisted Mohammedanization until the fourteenth century. Thereafter the area was broken up into many small states until 1820–22, when it was conquered by Mohammed Ali, Pasha of Egypt. Egyptian forces were evacuated during the Mahdist revolt (1881–98), but the Sudan was reconquered by the Anglo-Egyptian expeditions of 1896–98 and in 1899 became an Anglo-Egyptian condominium, which was reaffirmed by the Anglo-Egyptian treaty of 1936.

Egypt and Britain agreed in Feb., 1953, to grant self-government to the Sudan under an appointed Governor-General. Under the self-government statute of March 31, 1953, an all-Sudanese Parliament was elected in Nov.-Dec., 1953, and an all-Sudanese government was formed, headed by Ismail el-Azhari as Prime Minister. Under the agreement the Sudanese people were to determine their political status at the end of a 3-year period following the elections, but in Dec., 1955, the Parliament declared the independence of the Sudan, which, with the approval of Britain and Egypt, was proclaimed on Jan. 1, 1956. El-Azhari was replaced as Prime Minister by Abdullah Khalil on July 5. On March 20, 1958, the newly elected House of Representatives selected Abdullah Khalil to continue as Premier, but in November, 1958, he was ousted by Lt. Gen. Ibrahim Abboud, Commander-in-Chief of the Sudanese Army, who seized control, dissolved Parliament, and suspended the Constitution.

GOVERNMENT. The government is administered by the Prime Minister and his Cabinet. A bicameral Parliament has a Senate of fifty members and a House of Representatives of ninety-seven elected members.

ECONOMIC CONDITIONS. The northern part of the country is peopled by Arabic-speaking Moslems, while in the backward south Negroid pagan tribes predominate.

Long-staple cotton, the chief export crop, is grown under irrigation in the Kassala and Tokar areas of the north and in narrow strips along the main Nile. Durra, peanuts, corn, and oilseeds are grown elsewhere. Livestock raising is the occupation of most of the population.

Leading exports in 1957 were cotton (62%), gum arabic (8%), cottonseed (7%), and peanuts (6%). Leading customers were Britain (22%), India (13%), and Egypt (16%); leading suppliers, Britain (26%), India (12%) and Egypt (7%).

NATURAL FEATURES AND RESOURCES. About one-fourth the size of Europe, the Sudan extends from north to south about 1,200 miles and west to east about 1,000 miles. The northern region is a continuation of the Libyan Desert. The southern region is fertile, abundantly watered and, in places, heavily forested. It is traversed from north to south by the Nile, all of whose great tributaries are partly or entirely within its borders. The highest elevation is a mountain range parallel to the Red Sea, with heights of 4,000 to over 7,000 feet.

Salt is produced at Port Sudan, and gold deposits are worked at Gebelt, near the Red Sea. Most of the world's gum arabic comes from the semiarid Kordofan area of the west. The southern forests are rich in fibers and tannins.

Sweden (Kingdom)

(Sverige)

Area: 173,564 square miles.

Population (est. 1958): 7,415,000 (practically all Swedish).

Density per square mile: 42.7.

Sovereign: King Gustavus VI Adolphus.

Prime Minister: Tage Frihof Erlander.

Principal cities (est. 1958): Stockholm, 799,000 (capital); Göteborg, 393,047 (chief port, shipbuilding); Malmö, 217,429 (seaport); (est. 1956) Norrköping, 89,226 (textiles); Hälslingsborg, 74,947 (seaport).

Monetary unit: Krona.

Language: Swedish.

Religions: Swedish Lutheran, 99%; others, 1%.

STATUS IN THE WORLD TODAY

Sweden, a traditionally neutral nation, has adopted a policy of neutrality in the cold war although there is no doubt that public opinion favors the Free World as against a Communist dictatorship. Invited to join the Atlantic pact in 1949, she declined, but has taken drastic steps to maintain her neutrality. Military service

is compulsory from the ages of eighteen to forty-seven. The army consists of about 600,000 men in addition to a Home Guard of 100,000. The air force, with modern jets built in Sweden and including at least 50 combat squadrons and 1,200 planes, is the fourth largest in the world. Sweden is also one of the most advanced countries in the world in the construction of atom-bomb-proof military and civilian shelters.

HISTORY AND GOVERNMENT. The earliest historical mention of Sweden is found in Tacitus' *Germania*, where reference is made to the powerful king and strong fleet of the Suiones. Toward the end of the tenth century Olaf Skötkonung established a Christian stronghold in Sweden. The initial union with Norway came in 1397. In 1520 the Danish King, Christian II, conquered Sweden and in the "Stockholm Blood-Bath" put leading Swedish personalities to death. Gustavus Vasa (1523-1560) broke away from Denmark and fashioned the modern Swedish state.

Sweden played a leading role in the second phase (1630-1635) of the Thirty Years' War (1618-1648). By the Treaty of Westphalia (1648), Sweden obtained western Pomerania and some neighboring territory on the Baltic. In 1700 a coalition of Russia, Poland, and Denmark united against Sweden and by the Peace of Nystad (1721) forced her to relinquish Livonia, Ingria, Estonia, and parts of Finland.

From the Napoleonic wars Sweden emerged with the gain of Norway from Denmark and with a new royal dynasty stemming from Marshal Bernadotte of France, who became King Charles XIV (1818-1844). The artificial union between Sweden and Norway led to an unhappy feud. It was finally dissolved in 1905. Sweden maintained a position of neutrality in both World Wars.

Sweden is a constitutional monarchy. The king holds executive and judicial authority together with the Council of State, headed by the Prime Minister. The *Riksdag* consists of a First Chamber with 150 members elected by provincial and municipal councils and holding office for eight years, and a Second Chamber of 231 members popularly elected for four years. Men and women over 21 vote.

SOVEREIGN. Gustavus VI Adolphus, born Nov. 11, 1882, married (1) 1905, Princess Margaret Victoria (1882-1920); (2) 1923, Princess Louise Mountbatten (born 1889). To his first marriage was born Prince Gustavus Adolphus (born Apr. 22, 1906, killed in air crash Jan. 26, 1947), who was married in 1932 to Sibylla, Princess of Saxe-Coburg-Gotha; their offspring include a son, Carl Gustavus, the heir apparent, born April

30, 1946, and four daughters. Gustavus VI became King Oct. 30, 1950, on the death of his father, Gustavus V, who had reigned since 1907.

ECONOMIC CONDITIONS. *Agriculture.* Milk, butter, meat, grain, potatoes, and sugar beets are products of the broad fertile plains of the south; the north is limited to cattle raising and dairy farming.

The 1957 livestock estimates showed 262,000 horses, 2,462,000 cattle, 146,000 sheep, and 1,872,000 hogs.

Industry. The highly specialized machine industry produces separators, motors, electrical machines and apparatus, agricultural machinery, ball bearings, telephone equipment, and harbor works.

There are also large woolen, glass, and porcelain industries. Shipyards build for Swedish and foreign fleets. Timber and woodworking industries are extensive.

Trade. Leading exports in 1957 were wood pulp (15%), machinery and apparatus (13%), timber (12%), and iron ore (10%). Leading customers were Britain (18%), Western Germany (14%), Norway (8%), and the Netherlands (6%). Leading suppliers were Western Germany (22%), Britain (14%), the United States and Canada (13%), and Norway (4%). The principal imports included machinery, petroleum and products, textiles and clothing, and automobiles.

NATURAL FEATURES AND RESOURCES.

Sweden slopes eastward and southward from its peak elevation in the Kjölen mountains along the Norwegian border. In the north are mountains and many lakes. To the south and east are central lowlands, and south of them are fertile areas of forest, valley, and plain. Along Sweden's rocky coast, chopped up extensively by bays and inlets, are many islands, the largest of which are Gotland and Oland.

Minerals. Sweden's iron ore deposits (metal content 60%) are among the world's richest. Those in central Sweden produce principally for domestic use, while the ones in Lapland to the north are worked largely for export, with much of the output being shipped through the Norwegian port of Narvik. Other major minerals are copper, gold, lead, arsenic ore, manganese ore, and silver. Coal production (304,800 tons in 1957) is comparatively small; imports of several million tons a year are therefore necessary.

Forests and Fisheries. About 60 per cent of Sweden is forested, mostly conifers, and there are vast forest products industries in the north. Sweden supplies a large percentage of the world's mechanical and chemical pulp.

Switzerland (Republic)

(Schweiz-Suisse-Svizzera)

Area: 15,941 square miles.

Population (est. 1958): 5,185,000 (Swiss, 91.2%; German, 3.6%; Italian, 3.1%; French, .9%; others, 1.2%—figures by place of birth).

Density per square mile: 325.3.

President (1959): Paul Chaudet.

Principal cities (est. Dec. 1956): Zürich, 422,000 (textiles, banking); Basel, 197,000 (rail center; Rhine port); Geneva, 164,400; Bern, 158,700 (federal capital).

Monetary unit: Swiss franc.

Languages: German, 71.9%; French, 20.4%; Italian, 6.0%; Romansch, 1.1%; others, .6%.

Religions: Protestant, 57%; Roman Catholic, 41%; Jewish, .4%; others, 1.6%.

* The vice president ordinarily becomes president the next year. Vice-president in 1959: G. Lepori.

STATUS IN THE WORLD TODAY

In Switzerland, the classic home of neutrality, the foreign policy is carefully neutral in the cold war, even though Swiss traditions have long reflected the best of Western democratic development. Because of this traditional policy, Geneva was chosen after World War I as the seat of the League of Nations, and the country still constitutes the headquarters of a number of international organizations and is a great center for all sorts of international meetings and humanitarian associations. It has always shown great sympathy for foreigners in distress and has been a haven for political refugees, from Hungarian patriots of 1848 to those fleeing from Nazi Germany, Fascist Italy, and the Iron Curtain countries. Switzerland has entered into no military alliances and is not a member of the United Nations, although it has joined several international agencies of the U. N. Relations with the United States have always been cordial and friendly, despite friction over such matters as American tariffs on Swiss watches and watch works.

HISTORY AND GOVERNMENT. Called *Helvetia* in ancient times, Switzerland in the Middle Ages was a federation of fiefs of the Holy Roman Empire. Fashioned around the nucleus of three German forest districts of Schwyz, Uri, and Nidwalden, the Swiss Confederation slowly added new cantons. In 1648 the Treaty of Westphalia gave Switzerland her independence from the Holy Roman Empire. French revolutionary troops occupied Switzerland in 1798 and named it the *Helvetic Republic*, but Napoleon in 1803 restored its federal government. At this time and again in 1815 the French- and Italian-speaking peoples of Switzerland were raised to political equality.

In 1815 the Congress of Vienna neutralized and recognized the independence of Switzerland. In the revolutionary period of 1848 the Catholic cantons seceded and organized a separate union called the *Sonderbund*. In 1848 the new Swiss constitution established a union modeled upon that of the United States. The Federal Constitution of 1874 established a strong central government while still maintaining large powers of local control in each canton.

The Swiss Confederation consists of twenty-two sovereign cantons, each of which has a veto power over federal legislation by referendum. Federal authority is vested in a bicameral legislature. The *Ständerat*, or State Council, consists of forty-four members, two from each canton. The lower house, the *Nationalrat*, or National Council, has 196 members, one for each 24,000 of the population, elected for four-year terms. Executive authority is lodged in a board called the *Bundesrat*, or Federal Council, of seven members chosen by parliament. The Federal Council elects the President who serves for a term of one year and is ordinarily succeeded by the Vice President. The Federal Government regulates matters of war, peace, treaties, railroads, postal service, and the national mint. Each canton reserves for itself important local powers.

ECONOMIC CONDITIONS. In 1957 the leading customers were Western Germany (14%), the United States and Canada (13%), Italy (11%), France (6%), and Britain (5%). Leading suppliers were Western Germany (26%), the United States and Canada (16%), Italy (14%), France (12%), and Britain (5%). Leading exports were machinery (21%), clocks and watches (20%), chemicals and drugs (14%), and textiles and clothing (12%). Switzerland has a world-wide reputation for its highly skilled work in the manufacture of precision instruments, especially watches.

The Rhine, navigable from Basel to the North Sea, is the principal inland waterway. Railways built over rugged terrain, entailing construction of many bridges and tunnels, total about 4,900 miles, mostly electrified.

NATURAL FEATURES: Most of Switzerland comprises a mountainous plateau bordered by the great bulk of the Alps on the south and by the Jura Mountains on the northwest. About a fourth of the total area of Switzerland is covered by scenic mountains and glaciers.

The country's largest lakes, Geneva, Constance (Boden See), and Maggiore, straddle the French, German-Austrian, and Italian borders, respectively.

Syria (U.A.R Province)

(as-Souriya)

Egypt and Syria united in February, 1958, to form the United Arab Republic.

Area: 70,014 square miles.

Population (est. 1957): 4,082,000 (Arab, Armenian, Kurdish, Turkish, French).

Density per square mile: 58.3.

President: Gamal Abdel Nasser.

Principal cities (est. 1955): Damascus, 408,774 (capital); Aleppo, 407,613 (northern trading center); (est. 1954) Homs, 293,643 (farming, silk); Hama, 172,988 (Bedouin trading center).

Monetary unit: Syrian pound (£S).

Languages: Arabic, Aramaic, French.

Religions (est. 1949): Moslem, 85%; Christian, 13.9%; Jewish, 1%; others, 1%.

STATUS IN THE WORLD TODAY

Since Syria has been absorbed by Egypt into the United Arab Republic, it has lost its status as an independent nation and its position in world affairs is determined by the regime in Cairo.

HISTORY. Ancient Syria was conquered by Egypt about 1500 B.C., and after that by Hebrews, Phoenicians, Assyrians, Chaldeans, Persians, and Greeks. From 64 B.C. until the Arab conquest in A.D. 636, it was part of the Roman Empire except during brief periods. The Arabs made it a trade center for their whole empire, but it suffered severely from the Mongol invasion in 1260 and fell to the Ottoman Turks in 1516. Syria remained a Turkish province until World War I.

A secret Anglo-French pact of 1916 put Syria in the French zone of influence. The League of Nations gave France a mandate over Syria after World War I, but the French were forced to put down several nationalist uprisings. In 1930, France recognized Syria as an independent republic, but still subject to the mandate. After nationalist demonstrations in 1939, the French High Commissioner suspended the Syrian Constitution. In 1941, British and Free French forces invaded Syria to eliminate Vichy control. During the rest of World War II, Syria was an Allied base. Again in 1945, nationalist demonstrations broke into actual fighting, and British troops had to restore order. Syrian forces met a series of reverses while participating in the Arab invasion of Palestine in 1948. After Mar. 30, 1949, when the government was overthrown by Husni Zayim, there were several army coups d'état. That of Nov. 29, 1951, was engineered by Col. Adib Shishakly. Elected President in July, 1953, Shishakly was ousted on Feb. 25,

1954, by the army, which named Hachem Bey el-Attassi President. On Aug. 18, 1955, Shukri al-Kuwatly was elected President. In February, 1958, with the formation of the United Arab Republic through the union of Egypt and Syria, Gamal Abdel Nasser became President of the new Republic and Kuwatly, who had been instrumental in the Egyptian-Syrian negotiations, retired from public office.

Since October, 1958, Syria has been administered by an 11-member Executive Council the chairman of which was appointed by decree of the President of the U.A.R. Nasser also defined by decree the jurisdiction of the Executive Council.

ECONOMIC CONDITIONS. Agriculture and animal breeding are the main industries. Only half the land is arable, and only a third is actually cultivated. Most crops require irrigation. Leading crops include sorghum, olives, cotton, wheat, barley, grapes, lentils, and tobacco. Stock raising is important among nomads.

Leading exports in 1957 were raw cotton (35%), wool (6%), and sheep (6%). Principal customers were Lebanon (21%), France (20%), and Italy (10%); leading suppliers, Britain (13%), the United States (11%), and Western Germany (10%).

NATURAL FEATURES. Coastal Syria is a narrow plain. Back of that is a range of coastal mountains, and still farther inland is a steppe area. In the east is the Syrian Desert, and in the southeast next to Jordan is the Jebel Druze Range.

Thailand (Siam) (Kingdom)

(Muang Thai)

Area: 198,270 square miles.

Population (est. 1958): 21,474,000 (1937: Thai, 90%; Chinese, 3.4%; Indian and Malayan, 3.4%; others, 3.2%).

Density per square mile: 108.3.

Ruler: King Rama IX.

Prime Minister: Sarit Thanarat.

Principal cities (census 1947): Bangkok, 1,173,549 (capital, chief port); Khon Kaen, 153,934 (trading center); Buri Ram, 129,000 (farming); Thonburi, 118,682 (market center).

Monetary unit: Baht.

Languages: Thai (Siamese), Chinese.

Religions (census 1947): Buddhist, 95%; Moslem, 4%; others, 1%.

* Including about 2,500,000 of Chinese descent born in Siam.

STATUS IN THE WORLD TODAY

Although Thailand sided with the Axis during World War II, and thereby avoided the devastation of modern warfare, it has pursued a consistently pro-Western course since 1945. With Pakistan and the Philip-

ines, it is one of the three Asian members of the Southeast Asia Treaty Organization. Nevertheless, it has grown apprehensive over its proximity to Red China (there is also a minority of 3 million Chinese in Thailand), and in the last few years has shown unmistakable signs of its readiness to seek an accommodation with Peiping if ever this should become advisable. Thailand has received grants and credits from the United States but none from the Communist bloc thus far.

Since the abolition of the absolute monarchy in 1932, the country has been plagued by political instability, with a constant struggle for power among individuals and factions of a new middle-class oligarchy of young officers and civilian intellectuals. Nevertheless, significant progress has been made in the establishment of democratic institutions. For more than a quarter century Thailand has had a parliament in which elected representatives have discussed public questions and often subjected government policy to searching criticism, even if the cabinet has not yet been brought under parliamentary control. Civil liberties have never been wholly suppressed; Bangkok in particular has a lively and often outspoken press.

HISTORY AND GOVERNMENT. The Siamese first began moving down into their present homeland from the Asiatic continent in the sixth century A.D., and by the end of the thirteenth century ruled most of the western portion. During the next 400 years, the Siamese fought sporadically with the Cambodians to the east and the Burmese to the west. The British obtained recognition of paramount interest in Siam in 1824, and in 1896 an Anglo-French accord guaranteed Siamese independence.

A coup on June 24, 1932, changed the absolute monarchy into a representative government with universal suffrage. After five hours of token resistance on Dec. 8, 1941, Siam yielded to Japanese occupation and became one of the springboards in World War II for the Japanese campaign against Malaya. After the fall of its pro-Japanese puppet government in July, 1944, Siam pursued a policy of passive resistance against the Japanese, and on Aug. 16, 1945, after the Japanese surrender, Siam repudiated the declarations of war it had made against Britain and the U. S. in 1942.

By a treaty signed with Britain and India Jan. 1, 1946, Siam renounced all wartime acquisitions of Malayan territory and agreed that no canal linking the Gulf of Siam with the Indian Ocean would be cut across Siamese territory without British concurrence.

In October, 1958, Thannarat, who was Supreme Commander of the armed forces, seized power in a bloodless coup. He proclaimed martial law, dissolved the National Assembly and the Council of Ministers, abrogated the Constitution of 1932, and banned all political parties. On January 28, 1959, the King proclaimed an Interim Constitution and on February 4, 1959, he appointed a 240-member Constituent Assembly to draft a permanent Constitution. The Constituent Assembly, which included 181 members of the armed forces, immediately appointed Thannarat Premier.

RULER. Rama IX, who was born Dec. 5, 1927, second son of Prince Mahidol of Songkhla, succeeded to the throne on June 9, 1946, when his brother, King Ananda Mahidol, died of a gunshot wound. He was married on April 28, 1950, to Princess Kitiyakara; their son, Vajiralongkorn, born July 28, 1952, is heir apparent.

ECONOMIC CONDITIONS. Almost 90 per cent of the population work at agriculture. Rice is the principal crop, the staple food and the leading export. It is the basis of Thailand's whole economy and the key to its prosperity. Next most important is rubber. Other products include coconuts, corn, tobacco, cotton, sesame, sugar cane, and soybeans. Livestock, poor in quality and quantity, is used mainly for hauling. Manufacturing is of little importance. Domestic business is largely controlled by Chinese.

Chief exports in 1957 were rice (48%), rubber (19%), and tin (7%). Leading customers were Malaya and Singapore (29%), the United States (25%), and Japan (9%); leading suppliers, Japan (17%), the United States (16%), and Hong Kong (16%).

NATURAL FEATURES AND RESOURCES. Thailand, about three-fourths the size of Texas, supports most of its population in the central alluvial plain which is drained by the Chaupaya River and tributaries. There are small deposits of many important minerals, and some precious stones. Only tin, gold, tungsten, and salt are in commercial production.

Almost 70 per cent of Thailand's total land area is forested. Teak, the main forest product, covers over one-third of this area, chiefly in the northern hill country.

Trieste

This former free territory (293 sq. mi.) on the northeastern Adriatic was divided *de facto* between Italy and Yugoslavia under the provisions of a memorandum of understanding signed Oct. 5, 1954. Most of the area (202 sq. mi.) went to Yugoslavia; the smaller (91 sq. mi.) but far

more densely populated part, including the city of Trieste, went to Italy.

The free territory had been created under the provisions of the Italian peace treaty of 1947 and was to be under U. N. protection. It proved to be impossible to implement the treaty provisions, and Yugoslav and Anglo-U. S. occupation forces had continued the occupation begun in 1945 of substantially the areas transferred to Yugoslavia and Italy, respectively, in 1954.

Tunisia (Republic)

Area: 48,332 square miles.

Population (est. 1957) 3,815,000. (1946, by place of birth: Tunisian, 89.9%; French, 4.5%; Italian, 2.6%; others, 3%).

Density per square mile: 78.9.

President: Habib Bourguiba.

Principal cities (census 1956)*: Tunis, 410,000 (capital); Sfax, 65,635 (phosphate port); Sousse, 43,172 (seaport); Bizerte, 44,461 (seaport and naval base).

Monetary unit: Tunisian franc.

Languages: Arabic, French, Italian.

Religion: Predominantly Moslem.

STATUS IN THE WORLD TODAY

The government of President Bourguiba, although anti-French, is pro-Western in its foreign policy and, of late, anti-Nasser. In October, 1958, Tunisia broke off diplomatic relations with Egypt over interference in Tunisian affairs and an alleged plot to assassinate Bourguiba. It is the most Western-minded of the countries of North Africa and would like to liquidate its special economic and financial ties with France and be integrated economically with the Western world. It has received arms from the United States after refusing Soviet offers and receives about \$30 million a year in aid, a sum roughly equal to one-quarter of its budget.

Tunisia's relations with France have rapidly deteriorated because of the rebellion in Algeria. The rebel Algerian "government" is situated in Tunis, and there have been numerous instances of French troops chasing rebels on Tunisian territory under the doctrine of "hot pursuit." The Bourguiba regime was further irritated by devaluation of the French franc in December, 1958, by the alleged maintenance of a "spy ring" by a group of French civil servants in the postal and telegraph administration, and has claimed that parts of the French Sahara actually belong to Tunisia. French troops have been withdrawn except at the naval base of Bizerte, and Tunisia is pressing for their evacuation. More than half the 180,000 French who lived in Tunisia in 1956 have returned to France.

HISTORY AND GOVERNMENT. Tunisia was settled by the Phoenicians and Carthaginians in ancient times. Except for an interval of Vandal conquest in A.D. 439-533, it was part of the Roman Empire until the Arab conquest of 648-69. Then it was ruled by various Arab and Berber dynasties until the Turks took it in 1570-74. The founder of the present dynasty, Hussein ben'Ali, was proclaimed sovereign by the occupation troops in 1705 and later succeeded in making the office hereditary, although subject to nominal Turkish sovereignty.

Throughout much of its history, Tunisia was essentially a pirate state, preying on Mediterranean shipping. In modern times, Italy became predominant economically in the area, but after French troops occupied the area in 1881, the Bey signed a treaty acknowledging a French protectorate.

Following the Allied landings in North Africa in 1942, Tunisia became a battleground with the Axis forces pinched between the British 8th Army advancing from Libya and the U. S., British and French forces from Algeria. The Axis units surrendered in May 1943, and Tunisia was turned over to the De Gaulle government.

Nationalist agitation forced France to grant internal autonomy to Tunisia in June, 1955, and to recognize Tunisian independence and sovereignty in March 1956. Tunisia was admitted to the U. N. Nov. 12, 1956. The Constituent Assembly deposed the Bey on July 25, 1957, declared Tunisia a republic and elected Habib Bourguiba as the first President.

The executive power is vested by the Constitution in the President, who is elected for 5 years and may be re-elected for two additional terms. Legislative power is vested in a National Assembly elected by universal suffrage, but neither the President nor his Cabinet are responsible to the Assembly.

ECONOMIC CONDITIONS. Agriculture is the chief industry. Over a quarter of the arable land is in wheat. Other important crops are barley, oats, corn, sorghum, beans, and peas. The Cape Bon region is largely devoted to citrus fruits, the southern oases to dates. In 1957 there were 3,026,000 sheep, 544,000 cattle, (1954) 1,853,000 goats, and 202,000 camels.

Leading industries include flour milling, oil refining, lead smelting, and distilling. Native industries include the spinning and weaving of wool, and the making of pottery and leather goods.

Tunisia, Algeria, and France are under a single customs union for a number of products.

Leading exports in 1955 were phosphates (15%), wheat (12%), iron ore (8%), and olive oil (7%). France took 55% of the

exports and supplied 75% of the imports.

NATURAL FEATURES AND RESOURCES. Tunisia, at the northernmost bulge of Africa, thrusts out toward Sicily to mark the division between the eastern and western Mediterranean. It is mountainous in the north, covered by plains in the east, and projects southward to the Sahara area.

Tunisia's extremely rich deposits of phosphates are mined principally in the Gafsa and Kef regions. The iron ore is of good quality (55% metal content). Other minerals are lead, zinc, mercury, manganese, copper, and salt.

Turkey (Republic) (Türkiye Cumhuriyeti)

Area: 296,185 square miles.
Population (est. 1957): 25,500,000
(Turkish, 94%; Greek, 2.2%; Bulgarian, 1.4%; Yugoslavian, .9%; others, 1.5%).*

Density per square mile: 86.1.

President: Celâl Bayar.

Premier: Adnan Menderes.

Principal cities (census 1955): Istanbul, 1,214,616 (chief port, commercial center); Ankara, 453,151 (capital); Smyrna, 286,310 (seaport); Adana, 172,465 (agricultural center); Bursa, 131,336 (silk, carpets); Eskisehir, 122,755 (trading center).

Monetary unit: Turkish pound (₺).

Languages: Turkish, Greek, Bulgarian.

Religions: Moslem, 98.6%; others, 1.4%.

* 1935 by place of birth.

STATUS IN THE WORLD TODAY

Turkey, formerly labeled the "sick man of Europe," has achieved the transformation from Eastern empire to Western nation envisaged for it by Kemal Atatürk, and in the process has become one of the staunchest Western allies and a member of NATO. As a target for centuries of Muscovite imperialist expansion—whether Czarist or Communist—its people are naturally anti-Russian. It has a tough, 500,000-man army, mechanized with American equipment, and has agreed to accept bases for Western guided missiles and rockets. Its relations with Greece, the nation with which it constitutes the southern flank of NATO, have improved since solution of the Cyprus problem. It is a member of the Baghdad Pact, the northern tier alliance against Soviet aggression, and with Greece and Yugoslavia is a partner in the Balkan pact. In time of war it is in a position to close the Dardanelles to Soviet warships. During the Korean conflict, it sent a brigade to fight with the U.N. forces.

Economically, Turkey has been weakened by inflation, in part a by-product of too-rapid industrialization, with most factories dependent upon imported materials,

In the fall of 1958 it received a \$359 million credit from the United States and Europe to assist its economic recovery program. With exports lower than had been expected, exporters are now receiving government subsidies. Twenty-one companies, most of them American, are searching for oil.

HISTORY AND GOVERNMENT. The Ottoman Turks first appeared in the early thirteenth century A.D. Under the leadership of their Sultans, they gradually spread their hegemony over most of the Near East and the Balkans, capturing Constantinople in 1453 and storming the gates of Vienna in the seventeenth century. At the height of its power, the empire stretched from the Persian Gulf to the frontiers of Poland and from the shores of the Caspian Sea to Oran in Algeria.

The defeat of the Turkish navy at Lepanto in 1571 by the Holy League and of Turkish forces besieging Vienna in 1683 portended the decline of Ottoman power, reducing Turkey to the status of a pawn in Europe's political maneuvers. Russia moved into the Balkans in the eighteenth century and made herself official protector of the Balkan Christians. Fear of a Russian drive on Constantinople prompted England and France to declare war on Russia, and the Crimean War (1853-56) followed. As a result of the Russo-Turkish war (1877-78), Bulgaria became practically independent, and Rumania and Serbia threw off their nominal allegiance to the sultan. Further defeats were suffered by Turkey in a war with Italy (1911-12) and in the Balkan Wars (1912-13). Meanwhile, a revolt led by the Young Turks, an organization of youthful liberals, had forced the abdication of Sultan Abdul-Hamid in 1909 and established a constitutional regime.

On Aug. 2, 1914, at the outbreak of World War I, a secret alliance was signed between Germany and Turkey, whose army was advised by a German military mission, and in September the Allies declared war on Turkey. Turkish forces successfully defended the strategic Dardanelles, but British forces seized Palestine, Mesopotamia, and Syria; and the Hejaz revolted. By 1918 Allied forces held the territory along the Dardanelles and the Bosphorus, and later Greek forces occupied Smyrna.

In 1919 the new Nationalist party, headed by Mustafa Kemal, was organized to resist the Allied occupation, and in 1920 a National Assembly elected Mustafa Kemal President of both the Assembly and the government. Under his leadership, the Nationalist government was recognized by foreign powers, the Greeks were driven out of Smyrna, and other Allied forces were withdrawn. The present Turkish bound-

aries (with the exception of Alexandretta, ceded to Turkey by France in 1939) were fixed by the Treaty of Lausanne (1923) and later negotiations. The caliphate and sultanate were separated and the sultanate abolished on Oct. 1, 1922. On Oct. 29, 1923, Turkey formally became a republic with Mustafa Kemal, who took the name of Kemal Atatürk, as its first President. The caliphate was abolished on March 3, 1924, and Atatürk proceeded to carry out an extensive program of reform, modernization, and industrialization.

The Montreux Convention (1936) gave Turkey sole responsibility for the defense of the Dardanelles.

General Ismet İnönü was elected to succeed Kemal Atatürk on the latter's death in 1938 and was re-elected in 1939, 1943, and 1946, but was defeated in 1950 and succeeded by Celâl Bayar. On Oct. 19, 1939, a mutual assistance pact was concluded with Britain and France. Turkey followed a neutral course during most of World War II, but on Feb. 23, 1945, she declared war on Germany and Japan, but took no active part in the conflict. After the abrogation of the Soviet-Turkish non-aggression pact in March, 1945, Turkey was subjected to Soviet pressure for a share in the control of the Dardanelles. To assist Turkey in effecting modernization necessary for the preservation of its national integrity, the United States in 1947 agreed to advance \$100,000,000, all of which was to be used for the armed forces or to a lesser extent for economic projects directly related to Turkish defense. Turkey also received aid under the European Recovery Program. It became a full member of NATO in 1952.

The Constitution, as amended in 1937, defines the state as "republican, nationalist, populist, étatist, secular, and revolutionary." The President is chosen from the deputies of the National Assembly; his term of office is identical with the life of each Assembly. The members of the Assembly are elected by universal suffrage for a term of four years. According to the Turkish Constitution, the Assembly exercises the executive power through the President and the Council of Ministers (cabinet) which is appointed by him.

The Republican People's party, which had been in power since 1923, was overwhelmingly defeated in free elections held May 14, 1950, by the Democratic party.

In the October, 1957, elections the Democratic Party obtained a total of 424 seats in the Grand National Assembly, while the Republican People's Party gained a total of 178 seats.

ECONOMIC CONDITIONS. *Agriculture and Industry.* Agriculture is the prin-

cial economic activity, engaging about 65 per cent of the population. Only about 20 per cent of the land is under cultivation, but the government has made great efforts to modernize and improve farming. The most important cash crop is tobacco. Cotton is grown in the south of Asia Minor while figs come exclusively from the Smyrna region. Grain crops, with 1956 production in metric tons, include wheat and barley. Turkey is a leading exporter of olive oil; the Brusa region and the Ionian coast are the principal areas of cultivation. Opium poppies are grown in the Smyrna, Malatia, and Tokat regions.

Turkey is rich in livestock. The most important animal is the goat, of which there were 21,045,000 in Dec., 1953, including the valuable Angora, which thrives on the uplands of the plateau. There were also (Sept. 1957) 27,974,000 sheep, 11,546,000 cattle, and 1,257,000 horses. Wool production in 1957 was 39,900 metric tons, greasy basis.

Staple industries have been established in iron, steel, textiles, paper, glass, sugar, and cement. A large proportion of the factories are government-operated. Istanbul is the major industrial area.

Principal customers in 1957 were the United States and Canada (26%), EPU countries (25%), Western Germany (13%), and Britain (8%). Leading suppliers were the United States and Canada (31%), Western Germany (14%), Britain (8%), and other EPU countries (19%). Chief exports were tobacco (40%), hazelnuts (13%), cotton (12%), and chrome (6%); leading imports, machinery, iron, steel, fuel, and oil.

NATURAL FEATURES AND RESOURCES. Turkey is divided into two natural areas by the historic waterway formed by the Dardanelles, the Sea of Marmara, and the Bosphorus.

Turkey in Europe comprises an area about equal to the state of Massachusetts. It is hilly country drained by the Maritsa River and its tributaries. Almost all the population is concentrated in and near the two important towns, Istanbul (Constantinople) and Edirne (Adrianople). Turkey in Asia, or Anatolia, about the size of Texas, is roughly a rectangle in shape with its short sides on the east and west. Its center is a treeless plateau rimmed by mountains.

Minerals and Forests. Turkey's rich mineral resources are still comparatively unexploited. Deposits of copper are found in the large field at Arghana, near the Iraq-Syrian frontier. Turkey is also relatively rich in coal, with large deposits in the Ereğli region on the Pontic coast some 150 miles from Istanbul. A virtual world monopoly is enjoyed in meerschaum, found in

the Eskisehir district. Other important minerals include chromite, petroleum, manganese ore, iron ore (metal content 65%), emery, and antimony.

Union of Soviet Socialist Republics

Area: 8,650,069 square miles.

Population (est. April 1956)*: 200,200,000 (1939: Great Russian, 53.4%; Ukrainian, 16.6%; Byelorussian, 3.1%; Uzbek, 2.9%; Tartar, 2.5%; Kazakh, 1.8%; Armenian, Azerbaijani, Georgian, each 1.3%; more than 100 others, 10.8%).

Density per square mile: 23.1.

Chairman of Presidium of Supreme Council: Klementi E. Voroshilov.

Premier: N. S. Khrushchev.

Principal cities (est. April 1956)*: Moscow, 4,847,000 (capital); Leningrad, 2,819,000 (industrial center, shipbuilding); Kiev, 991,000 (industrial center, Ukraine); Kharkov, 877,000 (iron and steel, coal); Gorki, 876,000 (industrial, transportation center); Tashkent, 778,000 (textiles, tobacco); Kuybyshev, 760,000 (industrial center, Volga port); Novosibirsk, 731,000 (Siberian industrial center); Sverdlovsk, 707,000 (Ural industrial center); Tbilisi, 635,000 (building materials, tobacco); Stalino, 625,000 (coal, metallurgy).

Monetary unit: Rouble.

Languages: See Population, above.

Religions: Russian Orthodox (predominant), Moslem, Roman Catholic, Jewish, Lutheran.

* Official estimate of the Central Statistical Board of the Soviet Council of Ministers.

STATUS IN THE WORLD TODAY

As one of the two super-powers, the Union of Soviet Socialist Republics has only one cardinal foreign policy: the creation of Communist governments in other nations of the world, whether by force or otherwise, all of them subservient to the dictates of Moscow. All its energies are bent toward this principal end; after more than forty years of Communist rule, the Russian worker still awaits the proletariat paradise promised him. Raising his low standard of living must be subordinated to the task of industrialization and the heavy burden imposed on the economy by military expenditures—estimated at some 15% of the annual commitment of resources.

During World War II, this expansion of the Communist empire was accomplished by conquest and subversion and resulted in the creation of the belt of satellite states in Eastern Europe and the gradual assumption of power by the Reds in China. Now, with the specter of the end of all civilization in any atomic war, the Soviet formula calls for freezing the status quo in Europe, where Moscow feels that her "security"

demands control of neighboring countries, and peaceful penetration of the "underdeveloped" countries by using economic, diplomatic, and propaganda methods.

Moscow views the "colonial and semi-colonial" nations as the area of greatest opportunity for the present. It poses as the major defender of peace and national sovereignty, as the protector of the small and recently colonial states in their common hostility to "Western imperialism" and to capitalism, and as a model of growth of a previously backward country. Yet, paradoxically, while pretending to assist these nations against "imperialism," the U.S.S.R. itself is as imperialistic as, if not more so, than the tsarist regime it replaced. Its policy of imperialistic penetration of the nations which it—temporarily—assists is camouflaged by a skillful propaganda campaign for peace and coexistence. But its intentions are to take control of these states and to eliminate whatever free democratic institutions exist, even as they have done in such Eastern European countries as Latvia, Lithuania, Estonia, Hungary, Rumania, and Czechoslovakia. If peaceful penetration is not enough, it helps its partner, Red China, support small "civil wars" which can be kept from turning into a major war, or even military assistance on a larger and more open scale, as in Korea. But its primary method now is to undertake to construct industrial and social enterprises ranging from steel mills and dams to hospitals and stadiums and by stepping up mutually beneficial trade, although the benefits often flow only in the direction of Moscow.

Foreign policy in the Soviet sense is not limited to diplomacy. In addition to conventional international contacts through ambassadors and ministers, Moscow uses the international network of Communist parties and so-called front organizations as means of pressure and vehicles for the expansion of the Soviet orbit throughout the world.

Probably the greatest lasting accomplishment of the past forty years is the forced economic growth of the Soviet Union from a relatively backward state to a leader in many branches of economy, second only to the United States. In this giant effort the major emphasis has been on expansion of heavy industry, armaments, and machine tools, and a strikingly small proportion of the resources invested has gone into services and consumer goods. Although the worker theoretically owns all these means of production, he has benefited little from them. One careful study put the Soviet worker's real wages in 1950 at one-sixth of the American worker's. There has been some improvement since then, but nothing so striking as the giant strides made dur-

ing the same years in the production of iron and steel, the extraction of iron and coal, or the harnessing of electric and nuclear power.

Agriculture still remains the principal headache of the production bosses in the Kremlin. Collectivization has not solved the problem of food, and the forced deliveries demanded of the collective farms have had to be eased as an incentive to greater production. For a time the population grew faster than the food supply, and more and more people were leaving the farms for the cities. While the Soviet Union is still an agricultural country—55% of the population remains rural—it may find it easier to export raw materials and industrial products in return for food than to produce enough sustenance for its own population.

The U.S.S.R. is in fact a country of contradictions, with strengths as well as weaknesses, some of which are difficult to detect and estimate because of restrictions on the flow of information imposed by the Soviet regime. But a definition of tsarist Russia indicates that in some respects little has changed in the last fifty years: a multi-national empire marked by a strong central government, a theory of the right and duty of the state to guide the destinies of its subjects, and the absence of free political life.

HISTORY. The history of Russia begins with the perhaps legendary figure of the Viking, Rurik, who according to tradition came to Russia in A.D. 862 and founded the first Russian dynasty in Novgorod. The various tribes were united by the spread of Christianity in the 10th and 11th centuries; Vladimir "the Saint" was converted in 988. During the 11th century the grand dukes of Kiev held such centralizing power as existed. In 1240 Kiev was destroyed by the Mongols, and the Russian territory was split into numerous smaller dukedoms, out of which three large centers emerged—Galicia, Moscow and Novgorod. The early dukes of Moscow extended their dominions through their office of tribute collector for the Mongols.

In the late 15th century, Ivan III, the reigning duke, acquired the rival kingdoms of Novgorod and Tver and threw off the Mongol yoke. Ivan IV, the Terrible (1533-84), first Muscovite duke to assume the title of Tsar, is considered to have founded the Russian State. He crushed the power of rival princes and boyars (great land-owners), but Russia remained largely medieval until the reign of Peter the Great (1682-1725), grandson of the first Romanov Tsar, Michael (1613-45). Peter made extensive reforms aimed at westernization,

and through his defeat of Charles XII of Sweden at the Battle of Poltava (1709), he extended Russia's boundaries to the west. Catherine the Great (1762-96) continued Peter's westernization program and also expanded Russian territory, acquiring the Crimea and part of Poland. During the reign of Alexander I (1801-25), Napoleon's attempt to subdue Russia was defeated (1812-13), and new territory was gained, including Finland (1809) and Bessarabia (1812). Alexander was the originator of the Holy Alliance which crushed for a time Europe's rising liberal movement.

Alexander II (1855-81), pushed Russia's borders to the Pacific and into central Asia. Serfdom was abolished in 1861, but heavy restrictions were imposed on the emancipated class. Revolutionary strikes following Russia's defeat in the war with Japan forced Nicholas II (1894-1917) to grant a representative national body (Duma), elected by narrowly limited suffrage. It met for the first time in 1906. Nicholas continued in his reactionary course, however, and the overwhelmingly liberal Duma had little or no influence in the government.

World War I demonstrated the corruptness and inefficiency of the tsarist regime, although the call of patriotism held the poorly equipped army together for a time. Disorders broke out in Petrograd (now Leningrad) in March, 1917, and, following the winning over of the Petrograd garrison, the revolution was in full swing. Nicholas was forced to abdicate and was later killed by the revolutionists. A provisional government was formed, composed of both conservative and radical elements. This government, under the successive premierships of Prince Lvov and Alexander Kerensky, a Menshevik or moderate socialist, soon lost ground to the radical or Bolshevik wing of the Socialist Democratic Labor party. Finally, on Nov. 7, 1917, came the Second Revolution, engineered by Nikolai Lenin and Leon Trotsky. The humiliating Treaty of Brest-Litovsk (March 3, 1918) concluded the war with Germany, but civil war and intervention by foreign powers prevented the new Communist government from gaining control of all Russia until 1920. A brief war with Poland occurred in 1920, but it resulted in Russian defeat.

Soviet foreign policy—first featured by friendship with Germany and antagonism toward England and France and then, after Hitler's rise to power in 1933, by participation in the League of Nations and an anti-Fascist program—took another abrupt turn on Aug. 24, 1939, with the signing of a Soviet-German nonaggression pact. Territory seized from Poland (Sept. 1939) be-

came part of the Ukrainian and Byelorussian S.S.R.'s; that secured from Finland at the conclusion of the Finnish war of 1939-40, part of the Karelian S.S.R. set up March 31, 1940; that secured from Rumania (Bessarabia and northern Bukovina), part of the Moldavian S.S.R. set up Aug. 2, 1940; and finally the formerly independent states of Estonia, Latvia, and Lithuania, occupied in June 1940, were absorbed into the U.S.S.R. as the 14th, 15th, and 16th Soviet Republics. The latter annexations have not been recognized by the United States, Britain, and the majority of other nations.

Immediately following their attack (June 22, 1941), the Germans seized approximately 500,000 square miles of Soviet territory, but Soviet forces resisted stubbornly, aided by increasing amounts of matériel from the United States and Britain. The great Soviet counteroffensive in the Stalingrad area (Nov., 1942-Feb., 1943) marked the turning point. Soviet troops gradually pushed the Nazis back and unleashed their final great offensive on Jan. 12, 1945. The nonaggression pact with Japan (1941) was denounced in April, 1945, and, following the declaration of war on Japan (Aug. 8, 1945), Soviet Far Eastern forces quickly occupied Manchuria, Karafuto, and the Kuriles.

Postwar territorial acquisitions include the Carpatho-Ukraine (12,617 sq. mi.) obtained from Czechoslovakia June 29, 1945, incorporated into the Ukrainian S.S.R.; the Republic of Tannu Tuva in central Asia (64,000 sq. mi.) incorporated early in 1945 into the R.S.F.S.R.; Karafuto or south-

Republics of the U.S.S.R.

Republic and capital	Area sq. mi.	Population Est. April 1956* (thousands)
Russian S.F.S.R. (Moscow)	6,593,391†	113,200†
Ukraine (Kiev)	232,046	40,600
Kazakhstan (Alma Ata)	1,064,092	8,500
Byelorussia (Minsk)	80,154	8,000
Uzbekistan (Tash- kent)	158,069	7,300
Georgia (Tbilisi)	26,872	4,000
Azerbaijan (Baku)	33,475	3,400
Lithuania (Vilnius)	25,174	2,700
Moldavia (Chisinau)	13,012	2,700
Latvia (Riga)	24,595	2,000
Kirghizia (Frunze)	76,641	1,900
Tadzhikistan (Sta- linabad)	55,019	1,800
Armenia (Erivan)	11,506	1,600
Turkmenistan (Ash- khabad)	188,417	1,400
Estonia (Tallinn)	17,413	1,100

* Official estimate of the Central Statistical Board of the Soviet Council of Ministers. † Including the Karelo-Finnish S.S.R., incorporated into the R.S.F.S.R. in July 1956.

ern Sakhalin (13,935 sq. mi.) and the Kurile Islands (3,944 sq. mi.), occupied by Soviet troops in Aug., 1945, and incorporated into the R.S.F.S.R.; the northern part of eastern Prussia (about 7,000 sq. mi.), placed under *de facto* Soviet administration at the Potsdam Conference and incorporated into R.S.F.S.R.; the Petsamo district of Finland, obtained *de jure* under the 1947 treaty and incorporated into the R.S.F.S.R.; and Poland east of the Curzon Line (69,860 sq. mi.), under terms of the Soviet-Polish treaty of Aug. 16, 1945, incorporated into the Ukrainian and Byelorussian S.S.R.'s.

COMMUNIST PARTY. Real power resides in the Communist party of the Soviet Union (CPSU), recognized by the constitution as the vanguard of the masses and endowed with authority which has permitted it to emerge victorious from every real or potential challenge in the past forty years. Khrushchev's victory, like Stalin's a generation earlier, is the victory of the party machine, and Moscow openly states that the role of the party will continue to increase, while "administrative and repressive" functions (state bureaucracy, army, and police) will "lose their former role" in the Soviet state.

The Bolshevik party has grown from a membership of some 300,000 in 1918 and 1,900,000 in 1938 (after extensive purges), to nearly 8,000,000 today. It is still a select group, thoroughly screened, and subject to special obligations but also special privileges. As a group, it is the defender of the revolutionary order, a model for all to emulate, and the holder of political monopoly. While state, economic, and other institutions may be decentralized and reorganized time and again, the party has retained—and, it is safe to say, will retain—its highly centralized, disciplined character as a matter of principle and of expediency.

The party organization has spawned almost half a million cells ("primary party organizations"), which exist in virtually all factories, farms, and government offices. Operating as essential "transmission belts," they are responsible to district (county) committees, which in turn are under the direction of regional (provincial) committees, with the lower officials in each instance named or approved from above. The higher strata are represented by party organizations on the level of each Union Republic and finally, at the top, the All-Union leadership.

Formally, infrequent Party Congresses are supreme in determining strategy and electing the Central Committee, which is the most powerful single body in the country. It is composed of about 150 members

and "candidate" members picked to "guide the entire work of the party" and "direct the work of Soviet organs." Under Stalin the Central Committee atrophied and became as much of a fiction as did other institutions; under Malenkov it continued this ineffective existence. Khrushchev, on the other hand, appears to have "packed" it and restored it as a key instrument of government.

The importance of the Central Committee is enhanced by the fact that it directs a variety of staff departments, such as the "Agitprop" (responsible for "agitation and propaganda"), the Military Department (in charge of political control and indoctrination in the armed forces), the Foreign Department (which, since the dissolution of the Communist International in 1943, is responsible for contacts with Communist parties abroad), the so-called Cadre Department (which has the crucial say-so on personnel selection and promotion), and the supervision of the tens of thousands of party schools throughout the country.

The Central Committee meets in plenary session only about two or three times a year. In the interim, much of the actual work is carried on (in addition to the staff departments just described) by its Secretariat and the party Presidium (until 1952 known as the Politburo). The role of the Secretariat is suggested by the fact that Stalin was Secretary-General of the party during his rise to power, and Nikita Khrushchev, too, used the similar post of First Secretary of the party (which he gained in September, 1953) as the springboard to dictatorship.

DEFENSE. The land, air, and sea forces are under control of the Defense Ministry. Military service is compulsory; the initial training period varies from two to five years. The armed forces, which were estimated to have reached a peak of more than 15,000,000 men in 1945, numbered between 4,350,000 and 4,600,000 men in 1956, and were believed to have been reduced to approximately 3,400,000 by 1957. The strength of the army, including MVD and MGN troops (secret police organizations with paramilitary formations), was between 2,800,000 and 3,200,000 in 1956. The air force had between 750,000 and 800,000 men and 20,000 planes, including advanced models of jet fighters and bombers. The navy had between 600,000 and 750,000 men.

Information about the Red fleet is as vague as that about the army and air force. In Dec., 1956, it was believed to have three battleships, thirty-two cruisers, 150 destroyers, 250 frigates and escort vessels, 475 submarines, and many coastal and river craft, patrol vessels, minesweepers,

and various other small ancillary craft. Naval construction was emphasized in postwar five-year plans.

ECONOMIC CONDITIONS. *Agriculture.* Formerly an agricultural country, the Soviet Union has grown since about 1920 into an industrial-agricultural power, with agriculture making great advances at the same time.

The Union's diverse climate permits the growing of the most varied crops.

The progress of the livestock industry during the fifth Five-Year Plan was particularly disappointing.

Industry. Almost all industry in the Soviet Union is carried on by organizations owned or controlled by the state. Industrialization of the country has been a major objective of its leaders. Completion of the first two Five-Year Plans (1928-32, 1933-37) and of most of the third (1937-42) saw a great increase in the volume and versatility of Soviet industry.

The large-scale evacuation of plants to the East and the construction of new plants there during World War II, coupled with the eastward orientation of industry prior to the war, has shifted the balance to newly developed regions in Central Asia and Siberia from the Moscow-Leningrad area and the Ukraine. The new regions are now the center of Soviet industrial power, accounting for almost all magnesium and aluminum production, and more than 60 per cent of the pig iron and steel production. The production of consumers' goods continues to be subordinate to the production of heavy capital equipment.

Large increases in production were reported under the fourth and fifth Five-Year Plans and further increases were projected under the sixth Five-Year Plan.

Foreign Trade. Soviet foreign trade is a state monopoly, and foreign goods are purchased in accordance with an over-all plan conducted under the supervision of the Foreign Trade Ministry.

No complete trade statistics have been issued since 1938.

According to official reports, the main exports in 1955 were machines and equipment 22.1%; metals 15.2%; cotton 11.3%; grain 10.3%; and petroleum and products 6.4%; chief imports, machines and equipment 33.0%; textile raw materials 6.0%; metals 5.3%; ores and concentrates 4.2%; and meat 4.2%.

NATURAL FEATURES AND RESOURCES. The U.S.S.R. is the largest unbroken political unit in the world, occupying more than one-seventh of the land surface of the globe. The greater part of its territory is a vast plain stretching from eastern Europe to the Pacific Ocean.

This plain, relieved only occasionally by low mountain ranges (notably the Urals), consists of three zones running east and west: (1) the frozen marshy tundra of the Arctic; (2) the more temperate forest belt; and (3) the steppes or prairies to the south, which in southern Soviet Asia become sandy deserts. The topography is more varied in the South, particularly in the Caucasus between the Caspian and Black Seas, and in the Tien-Pamir mountain system bordering Afghanistan, Sinkiang, and Mongolia. Mountains (Stanovoi and Kolyma) and great rivers (Amur, Yenisei, Lena) also break up the sweep of the plain in Siberia.

Minerals. The U.S.S.R. is probably the richest country in the world in mineral resources, containing deposits of almost every known mineral. It ranks among the top producing nations in coal, chromite, iron ore, petroleum, gold, copper, manganese, and other products. The richest mineral region is that of the Ural Mountains, which lacks only good coking coal.

Forests. With a forested area of about 2,500,000,000 acres, the U.S.S.R. possesses a large proportion of the world's timber reserves. Most of the forested area is in Siberia, but there are also valuable stands in the Caucasus. Plans were made late in 1948 for the planting of huge forest belts 60 to 90 mi. wide in the southern steppes to protect fertile food-producing areas from the dry winds of the central Asian and Caspian deserts.

Fisheries and Furs. The rivers, lakes, and surrounding seas (except the Black Sea) are rich in fish. The acquisition of former Japanese fisheries in Karafuto and the Kuriles greatly increased output of the Far Eastern fish industry. Trapping is an important secondary industry, especially in eastern Siberia.

UNITED ARAB REPUBLIC. See Egypt, Syria

UNITED ARAB STATES. See Yemen

Uruguay (Republic)

(República Oriental del Uruguay)

Area: 68,369 square miles.

Population (est. 1957): 2,679,000 (1950: white, 89.1%; others, 10.9%).

Density per square mile: 39.2.

President of National Council: Martin R. Etchegoyen.

Principal cities (est. 1954): Montevideo, 810,969 (capital); Mercedes, 44,900 (farming center); Salto, 44,900 (cattle raising); Paysandú, 44,000 (meat packing).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

STATUS IN THE WORLD TODAY

Uruguay, unlike its neighbors, has been one of the consistently democratic nations of South America. But like its neighbors, it is now faced with an economic crisis. For many years a grazing nation, it began to industrialize itself as a result of the depression and World War II. The new industries produced goods at high costs, which required high tariffs to protect them. Now one-third of the country's population is engaged in industry. Government employment has expanded to the point where another one-third works for the government. Excessively early retirement ages and other exaggerated provisions of the social security system, one of the first of its kind, have made it onerously costly. There is also a great deal of discontent with the plural executive system, whereby a nine-member Executive Council replaced the office of president. It now has six majority and three minority members.

HISTORY AND GOVERNMENT. Juan Díaz de Solís, a Spaniard, discovered Uruguay in 1516, but the Portuguese were first to settle it when they founded Colonia in 1680. After a long struggle, Spain wrested the country from Portugal in 1778. Uruguay revolted against Spain in 1811, only to be conquered in 1816-20 by the Portuguese from Brazil. Independence was reasserted with Argentine help in 1825, and the republic was set up in 1830.

Under the 1934 Constitution, as amended in 1951, the executive power is exercised by a National Council of nine members, six of the majority and three of the minority party, appointed for a term of four years by the Senate and Chamber of Deputies meeting in joint session. The Presidency is rotated annually among members of the majority party in the Council. Members of the Senate and of the Chamber of Deputies are elected by popular vote for four years. A special tribunal of five members appointed by Congress arbitrates administrative disputes between the National Council and Congress.

ECONOMIC CONDITIONS. Cattle, sheep, meat, and wool dominate the Uruguayan economy. With nearly 80 per cent of its grassy land devoted to grazing, in 1956 there were 22,954,000 sheep and 7,305,000 cattle. Wool production in 1956 was 53,000 metric tons, clean. With only about 5 per cent of the land cultivated, a third of this grows wheat, the chief crop (1957-58: 596,000 metric tons).

Uruguay slaughters more than two million head of cattle and sheep a year, and meat processing is the largest manufac-

turing industry. There are many modern plants for chilling or freezing meat, and plants for liquid extract of beef.

In value, wool was the chief export (25%) in 1957, followed by meat (21%), hides (8%), and wheat (7%). Chief customers were the Netherlands (23%), the United States (10%), and Brazil (7%); leading suppliers, the United States (25%), Brazil (11%), and Western Germany (10%). Leading imports included machinery, vehicles, gasoline, textiles, and sugar. **NATURAL FEATURES.** Uruguay, a low, rolling plain in the south and a low plateau in the north, has a 120-mile Atlantic shore line, a 235-mile frontage on the Río de la Plata, and 270 miles on the Uruguay River, its western boundary.

Vatican City State (Stato Città Vaticana)

Area: 108.7 acres.

Population (est. 1958): 1,000 (Italian, 85%; Swiss and others, 15%).

Ruler: The Supreme Pontiff.

Monetary unit: Lira.

Languages: Latin, Italian.

Religion: Roman Catholic.

The Vatican City State, sovereign and independent, is situated on the Vatican hill on the right bank of the Tiber in northwest Rome. The area has been intimately associated with the history of the Roman Catholic Church since the time of the martyrdom of St. Peter. From it the Pope exercised temporal sway for many centuries over a large part of central Italy; in 1859 the Papal States comprised an area of some 17,000 sq. mi. During the struggle for Italian unification, from 1860 to 1870, most of this area became part of Italy.

By an Italian law of May 13, 1871, the temporal power of the Pope was abrogated, and the territory of the Papacy was confined to the Vatican and Lateran palaces and the Villa of Castel Gandolfo. The Popes consistently refused to recognize this arrangement, and by the Lateran Treaty of Feb. 11, 1929, between the Vatican and the Kingdom of Italy, the exclusive dominion and sovereign jurisdiction of the Holy See over the city of the Vatican was again recognized, thus restoring the Pope's temporal authority over the area. Accompanying the treaty were conventions regulating the position of the Catholic Church in Italy and providing for reimbursement to the Vatican in final settlement of the claims of the Holy See against Italy for the loss of temporal power in 1870-71.

The Supreme Pontiff Pius XII (Eugenio Facelli), died Oct. 9, 1958. He was born at Rome, March 2, 1876, proclaimed Cardinal

In 1929, and elected Pope on March 2, 1939. He was crowned on March 12, 1939. He was succeeded on October 28, 1958, by Cardinal Angelo Giuseppe Roncalli, who became Pope John XXIII.

The Pope has full legal, executive, and judicial powers. Executive power over the area is in the hands of a Governor appointed by the Pope.

The College of Cardinals is the Pope's chief advisory body, and upon his death the cardinals elect his successor for life. The cardinals themselves are created for life by the Pope. When complete, the College consists of seventy members.

The central administration of the Roman Catholic Church throughout the world is carried on in the Vatican by twelve congregations, three tribunals, and four offices. In its diplomatic relations with foreign countries, the Vatican is represented by the Papal Secretary of State.

The Vatican has its own railway station, postal facilities, coinage, newspaper, radio, and television system. In addition to the Vatican itself, which includes St. Peter's Square, extraterritorial rights are enjoyed in thirteen buildings in the city of Rome outside Vatican City.

Venezuela (Republic) (República de Venezuela)

Area: 352,143 square miles.

Population (est. 1958): 6,320,000* (mixed, 65%; white, 20%; Negro, 8%; Indian, 7%).

Density per square mile: 17.9*

President: Romulo Betancourt.

Principal cities (est. 1957): Caracas, 800,000 (capital); Maracaibo, 400,000 (oil); Barquisimeto, 175,000 (sugar, coffee, mining); Valencia, 125,000 (farming center).

Monetary unit: Bolivar.

Language: Spanish.

Religion: Roman Catholic.

* Excludes tribal Indians.

STATUS IN THE WORLD TODAY

Venezuela, having overthrown the brutal and corrupt Perez Jimenez dictatorship in January, 1958, is now preoccupied with re-establishing democratic government. Governed by military dictators virtually since independence, it now has a popularly elected President and Congress. On the economic front, it is trying to diversify its economy and reduce its dependence on oil, which normally provides 95% of its foreign exchange. It has put into execution an emergency economic plan of public works to absorb most of the 100,000 unemployed left by the Perez Jimenez regime. At the same time its Development Corporation has begun to extend loans to industries such as textiles, which need new

equipment in order to improve efficiency and productivity; to bolster some of the weaker elements of the nation's economy; and to plan for a broader economy, less subject to the vagaries of the oil business.

HISTORY AND GOVERNMENT. Venezuela, a third larger than Texas, is the world's second greatest producer of oil, outranked only by the United States. Simón Bolívar, who led the liberation of much of the continent from Spain, was born in Caracas.

Columbus discovered Venezuela on his third voyage in 1498. A subsequent Spanish explorer, for reasons of his own, gave the country its name, meaning "Little Venice." There were no important settlements until Caracas was founded in 1567. With Bolívar taking part, Venezuela was one of the first South American colonies to revolt against Spain in 1810, but it was not until 1821 that independence was won. Federated at first with Colombia and Ecuador, the country set up a republic in 1830, and then sank for many decades into a condition of revolt, dictatorship, and corruption.

Venezuela has a bicameral Congress, the 40 members of the Senate and the 160 members of the Chamber of Deputies being elected by direct popular vote for 4-year terms. The President is elected for five years and Romulo Betancourt, leader of the Democratic Action Party, was elected to that office on December 7, 1958.

ECONOMIC CONDITIONS. Agricultural production has failed to keep pace with the food needs of the rapidly increasing population. The principal crop is coffee, grown on 60,000 plantations on the slopes of the coastal mountains. Stock raising, which is centered east of Lake Maracaibo, and on the llanos, is important.

There are few industries, the most important being woodworking, cotton textiles, and tobacco products. Electric power is plentiful. In 1957, 1,022,364,000 bbl. of crude petroleum were refined. Venezuela's first steel plant is under construction.

Oil, most of which is found on the northwest shore of Lake Maracaibo, is by far the dominant factor in the economy. It accounts for 92% of exports, and gives the country a big foreign trade balance and a treasury surplus.

In 1957 the United States supplied over 64% of the imports, which included for the most part machinery and equipment, metals and manufactures, foodstuffs, beverages, and textiles. In addition to petroleum and products (92%), chief exports in 1957 were iron ore, coffee, and cacao. Most of the crude oil goes to the United States via the islands of Curacao and Aruba, refining centers in the West Indies.

NATURAL FEATURES AND RESOURCES. An unusual setting of mountain systems breaks Venezuela into four distinct areas: (1) the Maracaibo lowlands; (2) the mountainous region in the north and northwest; (3) the Orinoco basin with the llanos (vast grass-covered plains) on its northern border and great forest areas in the south and southeast; (4) the Guiana highland, south of the Orinoco, accounting for nearly half the national territory. About 80 per cent of Venezuela is drained by the Orinoco and its 400 tributaries.

Oil production in 1956 was 889,180,000 barrels. Venezuela has gold mines in the region southwest of the Orinoco delta. A subsidiary of Bethlehem Steel Corp. began the mining of iron ore in the El Pao area south of the Orinoco river in 1950, while a U. S. Steel Corp. subsidiary is exploiting a rich "iron mountain" south of Ciudad Bolívar on the Orinoco.

Republic of Vietnam (South)

Area: 65,726 square miles.

Population (est. 1956): 12,366,000.

Density per square mile: 188.1.

President: Ngo Dinh Diem.

Principal cities (est. 1956): Saigon-Cholon, 1,794,360 (capital, chief port); Tourane, 100,978 (port, naval base); Hué, 90,682 (rice, sawmills).

Monetary unit: Plastre.*

Languages: Annamese, French.

Religions: Buddhist, Christian.

* 1 plastre = 10 French metropolitan francs.

STATUS IN THE WORLD TODAY

South Vietnam, which was not expected to survive for long after the Geneva Agreements which ended the savage Indo-China War, has survived and even flourished with a militantly anti-Communist policy and no nonsense about "neutralism." Three main factors account for this: (1) the courageous leadership of Ngo Dinh Diem, who contained and reduced to manageable proportions the threat of the Communist underground, and thereby established conditions of genuine security throughout his territory; (2) the massive political and material support of the United States, including the protection afforded by the Manila Pact (September 1954) and assistance in receiving and integrating more than 850,000 refugees from the north into the life and economy of the country; and (3) the Communist decision, in line with the dictates of international strategy, to refrain from overt aggression or concerted efforts at subversion.

Economically, a land reform program has been instituted, land reclamation has proceeded apace and there have been important advances in the "infrastructure"

(transportation, communications, technical training, etc.) of South Vietnam's underdeveloped economy. A modest beginning has been made in industrialization. American aid continues at high levels, averaging well over \$200 million annually, not including military hard goods. On the negative side of the ledger, there has been little relaxation of the authoritarianism and repressiveness that have characterized Diem's government from the beginning. Most civil liberties remain rigidly circumscribed, and functioning democracy remains more an ideal than a reality.

HISTORY AND GOVERNMENT. The young republic of Vietnam comprises the southern part of the former state of Việt-Nam and includes all of the former state of Cochín-China and the southern part of Annam.

A presidential-type constitution was promulgated on October 26, 1956, and general elections for South Vietnam's first National Assembly of 123 members represented a victory for President Diem's supporters. The constitution provides for a strong executive, and the President, who is elected for five years, has veto power over all bills passed by the Assembly.

According to the Geneva Agreements of July, 1954, which ended the Indo-China war, North and South Vietnam were to be reunified through elections in 1956. But President Diem flouted the provisions of the Geneva Agreements on the ground that the French and not his government had been a signatory to them. The U.S.S.R. has vetoed the admission of South Vietnam into the United Nations.

About 90% of the people derive their livelihood from agriculture, most of them being employed in growing rice and rubber. The Mékong delta is one of the leading rice-exporting areas in the world. Production in 1957 included rice, 3,411,000 metric tons; rubber, 59,380 tons. Other crops are tea, coffee, maize, tobacco, kapok, and pepper. Water buffalo are used chiefly for draft purposes.

Factories, centered in Saigon-Cholon, are small and process goods for local consumption and agricultural and forest products for export. Most important are the rice and sawmills.

In 1956 the chief export was rubber (86%). Leading customers were France (67%), the United States (19%), and Cambodia (4%); leading suppliers, the United States (28%), Japan (26%), and France (23%).

Mineral resources are limited. Coal is most important; some deposits of phosphates and gold exist.

Democratic Republic of Vietnam (North)

Area: 63,360 square miles.
Population (est. 1957): 14,900,000.
Density per square mile: 235.1.
President: Ho Chi-minh.
Premier: Pham Van-dong.
Principal cities (est. 1957): Hanoi, 405,-
000 (capital); Haiphong, 170,000 (chief
port).
Monetary unit: Dong.
Languages: Annamese, Chinese, French.
Religions: Buddhist, Christian.

STATUS IN THE WORLD TODAY

North Vietnam, a satellite of both Moscow and Peiping, is ruled by the ruthless dictatorship of the Communist Viet Minh, who defeated the French in the Indo-China War. Its severity has caused 850,000 to flee to the south and led to at least one fairly widespread peasant revolt in the fall of 1956. But Viet Minh rule has not been seriously jeopardized, and according to creditable reports its army has been doubled to about 350,000 effectives in violation of the Geneva Agreements, and armed with massive support from the Communist bloc.

Favored by possession of most of Indo-China's mineral wealth and almost all of its modest pre-Geneva industrial plant, it has been able to make more economic progress than South Vietnam. It has also received large-scale economic aid from the Soviet bloc, said to total nearly \$100 million, and because of its resources has been making progress in industrialization.

HISTORY AND GOVERNMENT. The Democratic Republic of Vietnam comprises the northern part of the former state of Viet-Nam and includes all of the former state of Tongking and the northern part of Annam. It is no longer a part of the French Union. The government of the republic is organized along typical Communist lines. The decision taken at Geneva in July, 1954, to re-unite North and South Vietnam in July, 1956, was thwarted by the policies of Ngo Dinh Diem, President of the Republic of South Vietnam.

In February, 1959, Communist China and North Vietnam signed an agreement under which North Vietnam was to receive \$168,-775,000 in economic aid and the following month the Soviet Union announced that it would give North Vietnam substantial economic and technical aid to build industrial installations.

The economy is based on agriculture and mining. The chief crop is rice, grown chiefly in the Red River delta and supply-

ing in most years the requirements of the population. Other crops are maize, arrow-root, sugar cane, tea, coffee, tobacco, and sweet potatoes. Industry is not highly developed. There are important coal mines in the Quangyen basin near Haiphong. Tin, limestone, and gold also are produced. A railway runs south from Hanoi along the coast and in the north connects through Langson with the railway network of Communist China.

Yemen (Kingdom)

Federated in March, 1958, with the United Arab Republic (Egypt and Syria) to form the United Arab States.

Area: c. 75,290 square miles.
Population (est. 1953): 4,500,000.
Density per square mile: c. 59.8.
King: Ahmad ibn Yahya Hamid ed-Din.
Premier: Seif ul-Islam el-Badr.
Principal cities (est.): Sana, 60,000 (capital); Hodeida, 30,000 (chief port); Taiz, 12,000 (seat of government).
Monetary unit: Riyal.
Language: Arabic.
Religion: Moslem.

STATUS IN THE WORLD TODAY

Yemen, a backward little country which until recently was closed to foreigners, has lately been following the foreign policy of Nasser's Egypt. It has not joined his United Arab Republic but has become federated with it in what is called the United Arab States. When Nasser worked closely with the U.S.S.R., Yemen did too, receiving shipments of arms as well as a military mission and assistance from Red China. When Nasser turned against Communists inside Arab countries, Yemeni mobs displayed hostility toward the Soviets and Chinese. When an acute famine threatened early in 1959, however, Yemen received emergency shipments of wheat from the United States. It has also been carrying on intermittent minor warfare with the British along the undefined borders of the Aden protectorate, where it claims that some of the sheikdoms under British protection are actually part of Yemen.

HISTORY AND GOVERNMENT. The history of Yemen dates back to the Minaean kingdom (1,200-650 B.C.). It accepted Islam in 628 A.D. and in the tenth century came under the control of the Rasside dynasty of the Zaidi sect, which still rules. The Turks occupied the area from 1538 to 1630 and from 1849 to 1918. Its sovereign status was confirmed by treaties signed with Saudi Arabia and Britain in 1934. Yemen was admitted to U. N. membership in 1947.

Yemen is an absolute monarchy. The present ruler came to the throne in 1948, after insurgents murdered his father. The Imam (ruler) of Yemen is both the religious and temporal leader of the country and traces his ancestry to Ali, son-in-law of the Prophet Mohammed. Yemen has no parliament or political parties.

Unlike most of Arabia, the Yemeni highlands are well adapted to agriculture; they produce grain, fruit, vegetables, and Mocha coffee. Stock raising flourishes, particularly in the lowlands. Exports include coffee and hides.

Yugoslavia (Republic)

(Federaciona Narodna Republika
Jugoslavija)

Area: 98,700 square miles.

Population (est. 1958): 18,397,000 (1953: Serbian, 41.7%; Croat, 23.5%; Slovene, 8.8%; Macedonian, 5.3%; Albanian, 4.4%; others, 16.3%).

Density per square mile: 186.4.

President: Josip Broz (Tito).

Principal cities (census 1953): Belgrade (Beograd), 470,172 (capital); Zagreb, 350,829 (Croat commercial center); Ljubljana, 138,981 (Slovenian industrial center); Sarajevo, 136,283 (Bosnian manufacturing center); Skopje, 122,143 (capital, Macedonia); Subotica, 115,402 (wheat).

Monetary unit: Dinar.

Languages: Serbo-Croat, Slovene, Macedonian (all official).

Religions (est. 1952): Greek Orthodox, 49.6%; Roman Catholic, 36.8%; Moslem, 12.5%; others, 1.1%.

STATUS IN THE WORLD TODAY

Yugoslavia is every bit as much a Communist dictatorship as any of the Soviet satellites—a one-party state in which monopoly of power is exercised by a handful of men—but it differs from the satellites in one important respect: it has rebelled against the doctrine that Moscow, and Moscow alone, is the true fountainhead of all Communist ideology and has developed its own brand of home-grown communism. As a consequence it has come under heavy propaganda fire from all other Communist countries, including China, for its alleged ideological heresies which impaired the unity of the entire socialist camp. It has in its own way inflicted an embarrassing psychological defeat on the Kremlin by showing the satellites that there is a way to communism which does not demand blind obeisance to Moscow. Tito's independent stand was made possible by a number of factors: Soviet troops were not on Yugoslav soil; a territorial buffer existed between Yugoslavia and the U.S.S.R.; Tito was installed in full com-

mand of his country sooner than any other Communist in Eastern Europe and achieved his goals without Soviet assistance. Yugoslavia's expulsion from the Cominform came in 1948 over disagreements with Stalin over purely internal Communist matters. Stalin wanted to infiltrate Tito's party and subordinate it and its policies to direct dictation from Moscow. In 1955, Khrushchev and Bulganin traveled to Belgrade to try to heal the breach, blaming it on the discredited Stalinist policies. But a lasting reconciliation could not be effected.

Tito's present policy is one of studied neutrality. He advocates peace and opposes military blocs, and has entertained and visited with like-minded leaders of Arab and Asian nations, such as Nehru, Nasser, and other lesser potentates. His attitude toward the West can best be described as one of aloof appreciation of services rendered. There is no doubt that he owes his survival after the break with Russia to adequate and timely Western assistance. The United States alone provided him with a total of about \$1.5 billion in aid, half economic and half military, while the Soviet Union has proposed postponing for five years promised economic credits valued at \$285 million. But in return for vital support from the West Tito has not made any formal commitments for diplomatic, economic, or military cooperation with the West. In the United Nations he has voted with or against the Soviet bloc as warranted by the occasion.

HISTORY AND GOVERNMENT. Yugoslavia, fronting on the Adriatic Sea opposite Italy, was formed in 1919 out of some of Europe's oldest trouble spots in the Balkans. After a brief and unstable history of twenty-five years, it emerged from World War II as a Russian satellite.

The 1919 components of Yugoslavia were the old kingdoms of Serbia and Montenegro, and the following: Bosnia-Herzegovina, formerly administered jointly by Austria and Hungary; Croatia-Slavonia, which had had limited autonomy under Hungary; and Slovenia and Dalmatia, formerly administered by Austria.

Alexander I, son of King Peter of Serbia, became the first King of the new country on Aug. 16, 1921. His reign was a rocky one because the Croats, under Dr. Stephen Radić, unceasingly sought autonomy. Finally, a Croat assassinated Alexander in Marseilles, France, in 1934, and since his son Peter was a minor, a regency was set up under Prince Paul, the new King's uncle.

After pursuing an increasingly pro-Axis policy under the regent, Yugoslavia signed the Axis Pact on March 25, 1941; this caused the overthrow of the government two days later. On April 6 the country was invaded by the Nazis and was speedily occupied. While the King and government fled to the Near East and later to London, Yugoslavia was divided into German, Italian, Hungarian, and Bulgarian occupation zones.

Inside Yugoslavia, the Axis occupation was fought by two guerrilla armies—the Chetniks under Draža Mihailović, who supported the monarchy; and the Partisans under Marshal Tito (Josip Broz), who leaned toward Russia. These two groups fought not only the Germans, but also each other. In November, 1943, Tito established an Executive National Committee of Liberation to act as a provisional government, thus repudiating King Peter.

In the elections of Nov. 11, 1945, Tito's forces won overwhelmingly, partly because the monarchist factions boycotted the balloting. Convening on Nov. 29, the new Assembly abolished the monarchy and set up the Federal People's Republic of Yugoslavia. Tito was Prime Minister, and his government won recognition from Britain and the United States.

The Tito government embarked upon an internal policy of ruthless oppression and elimination of opposition factions, including the summary trial and execution of Mihailović in 1946.

Soviet support enabled the nation to secure most of Italian Istria under the 1947 peace treaty, but efforts to secure sovereignty over the key port of Trieste were unsuccessful. Zone B of the former free territory of Trieste was, however, transferred to Yugoslavia in Oct., 1954.

Tito was elected President under the new Constitution on Jan. 14, 1953.

Yugoslavia is a federal republic composed of six units—Serbia (which includes the autonomous province of Vojvodina and the autonomous region of Kosovo-Metohija), Croatia, Slovenia, Bosnia-Herze-

govina, Macedonia, and Montenegro. Actual administration is carried on by five State Secretaries responsible to an Executive Council. Actual control of the country remains with the Yugoslav Communist Party.

ECONOMIC CONDITIONS. Agriculture occupies about 80 per cent of the population. The principal crops are corn, wheat, sugar beets, hemp, hops, opium (in Macedonia), and tobacco (chiefly in Macedonia and Herzegovina). Excellent wines are produced in Dalmatia and Herzegovina and along the Danube.

In 1957 there were 4,947,000 cattle, 10,622,000 sheep, and 3,725,000 hogs.

Manufactures are limited for the most part to consumers' goods. Legislation passed Dec. 5, 1946, nationalized all private economic enterprises, public works and industries in forty-two branches of the national economy including mining, metallurgy, and all industries which process natural products.

Leading customers in 1957 were Western Germany (13%), Italy (14%), and the U.S.S.R. (13%); leading suppliers, the United States and Canada (26%), the U.S.S.R. (10%), Western Germany (12%), and other EPU countries (12%). Chief exports in 1956 were copper (9%), sawn timber (8%), and tobacco (4%).

NATURAL FEATURES AND RESOURCES. About half of Yugoslavia is mountainous. In the north, the Dinaric Alps rise abruptly from the sea and progress eastward as a barren limestone plateau called the Karst. Montenegro is a jumbled mass of mountains, containing also some grassy slopes and fertile river valleys. Southern Serbia, too, is mountainous. A rich plain in the north and north-east, drained by the Danube, is the most fertile area of the country. The Danube and tributaries—the Drava, Sava, and Morava—in the northeast are the principal rivers.

Yugoslavia is the Balkans' principal mineral producer.

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SPORTS



For 1959 sports champions and records,
see special section beginning on Page 857.

BASEBALL

THE POPULAR TRADITION that baseball was invented by Abner Doubleday at Cooperstown, N. Y., in 1839, has been enshrined in the Hall of Fame and National Museum of Baseball erected in that town, but research has proved that a game called "Base Ball" was played in this country and England before 1839. However, the first team baseball as we know it was played at the Elysian Fields, Hoboken, N. J., on June 19, 1846, between the Knickerbockers and the New York Nine. There was a gradual growth of baseball and an improvement of equipment and playing skill in the next fifty years. Soldiers returning home from the Civil War spread over the country the game they had learned to play in camp.

Historians have it that the first pitcher to throw a curve was William A. (Candy) Cummings in 1867. The Cincinnati Red Stockings were the first all-professional team and in 1869 they played 64 games without a loss. The standard ball of the

same size and weight, still the rule, was adopted in 1872. The first catcher's mask was worn in 1875. The National League was organized in 1876. The first chest protector was donned in 1885. The three-strike rule was put on the books in 1887 and the four-ball ticket to first base came in 1889. The pitching distance, formerly shorter, was lengthened to 60 feet 6 inches in 1893 and the rules have been only slightly modified since that time.

The American League, under the vigorous leadership of B. B. Johnson, blossomed forth as a major league in 1901. Judge Kenesaw Mountain Landis, by action of the two major leagues, became Commissioner of Baseball in 1921 and, upon his death (1944), Albert B. Chandler, former United States Senator from Kentucky, was elected to that office (1945). Chandler failed to obtain a new contract, and he was succeeded by Ford C. Frick (1951), the National League president.

PROFESSIONAL BASEBALL GOVERNMENT

NATIONAL LEAGUE—AMERICAN LEAGUE—NATIONAL ASSOCIATION

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Baseball Statistics

Source: *The Little Red Book of Baseball*, published by The Elias Baseball Bureau, New York City.

Record of World Series Games

Figures in parentheses indicate number of victories for each club. Pitchers named are winner and loser, respectively.

1903—BOSTON A. L. (5) vs. PITTSBURGH N. L. (3)

Managers—Jimmy Collins, Boston; Fred Clarke, Pittsburgh

Oct. 1—Pittsburgh (Phillippe).....	7	Boston (Young).....	3	At Boston
Oct. 2—Boston (Dinneen).....	3	Pittsburgh (Lever).....	0	At Boston
Oct. 3—Pittsburgh (Phillippe).....	4	Boston (Hughes).....	2	At Boston
Oct. 6—Pittsburgh (Phillippe).....	5	Boston (Dinneen).....	4	At Pittsburgh
Oct. 7—Boston (Young).....	11	Pittsburgh (Kennedy).....	2	At Pittsburgh
Oct. 8—Boston (Dinneen).....	6	Pittsburgh (Lever).....	3	At Pittsburgh
Oct. 10—Boston (Young).....	7	Pittsburgh (Phillippe).....	3	At Pittsburgh
Oct. 13—Boston (Dinneen).....	3	Pittsburgh (Phillippe).....	0	At Boston

1904—No Series

1905—NEW YORK N. L. (4) vs. PHILADELPHIA A. L. (1)

Managers—John J. McGraw, New York; Connie Mack, Philadelphia.

Oct. 9—New York (Mathewson).....	3	Philadelphia (Plank).....	0	At Philadelphia
Oct. 10—Philadelphia (Bender).....	3	New York (McGinnity).....	0	At New York
Oct. 12—New York (Mathewson).....	9	Philadelphia (Coakley).....	0	At Philadelphia
Oct. 13—New York (McGinnity).....	1	Philadelphia (Plank).....	0	At New York
Oct. 14—New York (Mathewson).....	2	Philadelphia (Bender).....	0	At New York

1906—CHICAGO A. L. (4) vs. CHICAGO N. L. (2)

Managers—Fielder Jones, Chicago A. L.; Frank L. Chance, Chicago N. L.

Oct. 9—Chicago A (Altrock).....	2	Chicago N (Brown).....	1	At Chicago Nat. Pk.
Oct. 10—Chicago N (Reulbach).....	7	Chicago A (White).....	1	At Chicago Am. Pk.
Oct. 11—Chicago A (Walsh).....	3	Chicago N (Pfister).....	0	At Chicago Nat. Pk.
Oct. 12—Chicago N (Brown).....	1	Chicago A (Altrock).....	0	At Chicago Am. Pk.
Oct. 13—Chicago A (Walsh).....	8	Chicago N (Pfister).....	6	At Chicago Nat. Pk.
Oct. 14—Chicago A (White).....	8	Chicago N (Brown).....	3	At Chicago Am. Pk.

1907—CHICAGO N. L. (4) vs. DETROIT A. L. (0)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 8—Chicago (tie).....	3	Detroit (tie).....	3	At Chicago (12 inn.)
Oct. 9—Chicago (Pfister).....	3	Detroit (Mullin).....	1	At Chicago
Oct. 10—Chicago (Reulbach).....	5	Detroit (Siever).....	1	At Chicago
Oct. 11—Chicago (Overall).....	6	Detroit (Donovan).....	1	At Detroit
Oct. 12—Chicago (Brown).....	2	Detroit (Mullin).....	0	At Detroit

1908—CHICAGO N. L. (4) vs. DETROIT A. L. (1)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 10—Chicago (Brown).....	10	Detroit (Summers).....	6	At Detroit
Oct. 11—Chicago (Overall).....	6	Detroit (Donovan).....	1	At Chicago
Oct. 12—Detroit (Mullin).....	8	Chicago (Pfister).....	3	At Chicago
Oct. 13—Chicago (Brown).....	3	Detroit (Summers).....	0	At Detroit
Oct. 14—Chicago (Overall).....	2	Detroit (Donovan).....	0	At Detroit

1909—PITTSBURGH N. L. (4) vs. DETROIT A. L. (3)

Managers—Fred Clarke, Pittsburgh; Hugh Jennings, Detroit.

Oct. 8—Pittsburgh (Adams).....	4	Detroit (Mullin).....	1	At Pittsburgh
Oct. 9—Detroit (Donovan).....	7	Pittsburgh (Camnitz).....	2	At Pittsburgh
Oct. 11—Pittsburgh (Maddox).....	8	Detroit (Summers).....	6	At Detroit
Oct. 12—Detroit (Mullin).....	5	Pittsburgh (Leifield).....	0	At Detroit
Oct. 13—Pittsburgh (Adams).....	8	Detroit (Summers).....	4	At Pittsburgh
Oct. 14—Detroit (Mullin).....	5	Pittsburgh (Willis).....	4	At Detroit
Oct. 16—Pittsburgh (Adams).....	8	Detroit (Donovan).....	0	At Detroit

1910—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Frank L. Chance, Chicago.

Oct. 17—Philadelphia (Bender).....	4	Chicago (Overall).....	1	At Philadelphia
Oct. 18—Philadelphia (Coombs).....	9	Chicago (Brown).....	3	At Philadelphia
Oct. 20—Philadelphia (Coombs).....	12	Chicago (McIntire).....	5	At Chicago
Oct. 22—Chicago (Brown).....	4	Philadelphia (Bender).....	3	At Chicago (10 inn.)
Oct. 23—Philadelphia (Coombs).....	7	Chicago (Brown).....	2	At Chicago

1911—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (2)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 14—New York (Mathewson).....	2	Philadelphia (Bender).....	1	At New York
Oct. 15—Philadelphia (Plank).....	3	New York (Marquard).....	1	At Philadelphia
Oct. 17—Philadelphia (Coombs).....	3	New York (Mathewson).....	2	At New York (11 inn.)
Oct. 24—Philadelphia (Bender).....	4	New York (Mathewson).....	2	At Philadelphia
Oct. 25—New York (Crandall).....	4	Philadelphia (Plank).....	3	At New York (10 inn.)
Oct. 26—Philadelphia (Bender).....	13	New York (Ames).....	2	At Philadelphia

1912—BOSTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—J. Garland Stahl, Boston; John J. McGraw, New York.

Oct. 8—Boston (Wood).....	4	New York (Tesreau).....	3	At New York
Oct. 9—Boston (tie).....	6	New York (tie).....	6	At Boston (11 inn.)
Oct. 10—New York (Marquard).....	2	Boston (O'Brien).....	1	At Boston
Oct. 11—Boston (Wood).....	3	New York (Tesreau).....	1	At New York
Oct. 12—Boston (Bedient).....	2	New York (Mathewson).....	1	At Boston
Oct. 14—New York (Marquard).....	5	Boston (O'Brien).....	2	At New York
Oct. 15—New York (Tesreau).....	11	Boston (Wood).....	4	At Boston
Oct. 16—Boston (Wood).....	3	New York (Mathewson).....	2	At Boston (10 inn.)

1913—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (1)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 7—Philadelphia (Bender).....	6	New York (Marquard).....	4	At New York
Oct. 8—New York (Mathewson).....	3	Philadelphia (Plank).....	0	At Philadelphia (10 inn.)
Oct. 9—Philadelphia (Bush).....	8	New York (Tesreau).....	2	At New York
Oct. 10—Philadelphia (Bender).....	6	New York (Demaree).....	5	At Philadelphia
Oct. 11—Philadelphia (Plank).....	3	New York (Mathewson).....	1	At New York

1914—BOSTON N. L. (4) vs. PHILADELPHIA A. L. (0)

Managers—George T. Stallings, Boston; Connie Mack, Philadelphia.

Oct. 9—Boston (Rudolph).....	7	Philadelphia (Bender).....	1	At Philadelphia
Oct. 10—Boston (James).....	1	Philadelphia (Plank).....	0	At Philadelphia
Oct. 12—Boston (James).....	5	Philadelphia (Bush).....	4	At Boston (12 inn.)
Oct. 13—Boston (Rudolph).....	3	Philadelphia (Shawkey).....	1	At Boston

1915—BOSTON A. L. (4) vs. PHILADELPHIA N. L. (1)

Managers—William Carrigan, Boston; Patrick J. Moran, Philadelphia.

Oct. 8—Philadelphia (Alexander).....	3	Boston (Shore).....	1	At Philadelphia
Oct. 9—Boston (Foster).....	2	Philadelphia (Mayer).....	1	At Philadelphia
Oct. 11—Boston (Leonard).....	2	Philadelphia (Alexander).....	1	At Boston
Oct. 12—Boston (Shore).....	2	Philadelphia (Chalmers).....	1	At Boston
Oct. 13—Boston (Foster).....	5	Philadelphia (Rixey).....	4	At Philadelphia

1916—BOSTON A. L. (4) vs. BROOKLYN N. L. (1)

Managers—William Carrigan, Boston; Wilbert J. Robinson, Brooklyn.

Oct. 7—Boston (Shore).....	6	Brooklyn (Marquard).....	5	At Boston
Oct. 9—Boston (Ruth).....	2	Brooklyn (Smith).....	1	At Boston (14 inn.)
Oct. 10—Brooklyn (Coombs).....	4	Boston (Mays).....	3	At Brooklyn
Oct. 11—Boston (Leonard).....	6	Brooklyn (Marquard).....	2	At Brooklyn
Oct. 12—Boston (Shore).....	4	Brooklyn (Pfeffer).....	1	At Boston

1917—CHICAGO A. L. (4) NEW YORK N. L. (2)

Managers—Clarence H. Rowland, Chicago; John J. McGraw, New York.

Oct. 6—Chicago (Cicotte).....	2	New York (Sallee).....	1	At Chicago
Oct. 7—Chicago (Faber).....	7	New York (Anderson).....	2	At Chicago
Oct. 10—New York (Benton).....	2	Chicago (Cicotte).....	0	At New York
Oct. 11—New York (Schupp).....	5	Chicago (Faber).....	0	At New York
Oct. 13—Chicago (Faber).....	8	New York (Sallee).....	5	At Chicago
Oct. 15—Chicago (Faber).....	4	New York (Benton).....	2	At New York

1918—BOSTON A. L. (4) vs. CHICAGO N. L. (2)

Managers—Ed Barrow, Boston; Fred Mitchell, Chicago.

Sept. 5—Boston (Ruth).....	1	Chicago (Vaughn).....	0	At Chicago
Sept. 6—Chicago (Tyler).....	3	Boston (Bush).....	1	At Chicago
Sept. 7—Boston (Mays).....	2	Chicago (Vaughn).....	1	At Chicago
Sept. 9—Boston (Ruth).....	3	Chicago (Douglas).....	2	At Boston
Sept. 10—Chicago (Vaughn).....	3	Boston (Jones).....	0	At Boston
Sept. 11—Boston (Mays).....	2	Chicago (Tyler).....	1	At Boston

1919—CINCINNATI N. L. (5) vs. CHICAGO A. L. (3)

Managers—Patrick J. Moran, Cincinnati; William Gleason, Chicago.

Oct. 1—Cincinnati (Ruether).....	9	Chicago (Cicotte).....	1	At Cincinnati
Oct. 2—Cincinnati (Sallee).....	4	Chicago (Williams).....	2	At Cincinnati
Oct. 3—Chicago (Kerr).....	3	Cincinnati (Fisher).....	0	At Chicago
Oct. 4—Cincinnati (Ring).....	2	Chicago (Cicotte).....	0	At Chicago
Oct. 6—Cincinnati (Eller).....	5	Chicago (Williams).....	0	At Chicago
Oct. 7—Chicago (Kerr).....	5	Cincinnati (Ring).....	4	At Cincinnati
Oct. 8—Chicago (Cicotte).....	4	Cincinnati (Sallee).....	1	At Cincinnati
Oct. 9—Cincinnati (Eller).....	10	Chicago (Williams).....	5	At Chicago (10 inn.)

1920—CLEVELAND A. L. (5) vs. BROOKLYN N. L. (2)

Managers—Tris Speaker, Cleveland; Wilbert J. Robinson, Brooklyn.

Oct. 5—Cleveland (Coveleskie).....	3	Brooklyn (Marquard).....	1	At Brooklyn
Oct. 6—Brooklyn (Grimes).....	3	Cleveland (Bagby).....	0	At Brooklyn
Oct. 7—Brooklyn (Smith).....	2	Cleveland (Caldwell).....	1	At Brooklyn
Oct. 9—Cleveland (Coveleskie).....	5	Brooklyn (Cadore).....	1	At Cleveland
Oct. 10—Cleveland (Bagby).....	8	Brooklyn (Grimes).....	1	At Cleveland
Oct. 11—Cleveland (Mails).....	1	Brooklyn (Smith).....	0	At Cleveland
Oct. 12—Cleveland (Coveleskie).....	3	Brooklyn (Grimes).....	0	At Cleveland

1921—NEW YORK N. L. (5) vs. NEW YORK A. L. (3)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 5—New York A (Mays).....	3	New York N (Nehf).....	0	At Polo Grounds
Oct. 6—New York A (Hoyt).....	3	New York N (Douglas).....	0	At Polo Grounds
Oct. 7—New York N (Barnes).....	13	New York A (Quinn).....	5	At Polo Grounds
Oct. 9—New York N (Douglas).....	4	New York A (Mays).....	2	At Polo Grounds
Oct. 10—New York A (Hoyt).....	3	New York N (Nehf).....	1	At Polo Grounds
Oct. 11—New York N (Barnes).....	8	New York A (Shawkey).....	5	At Polo Grounds
Oct. 12—New York N (Douglas).....	2	New York A (Mays).....	1	At Polo Grounds
Oct. 13—New York N (Nehf).....	1	New York A (Hoyt).....	0	At Polo Grounds

1922—NEW YORK N. L. (4) vs. NEW YORK A. L. (0)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 4—New York N (Ryan).....	3	New York A (Bush).....	2	At Polo Grounds
Oct. 5—New York N (tie).....	3	New York A (tie).....	3	At Polo Grounds (10 inn.)
Oct. 6—New York N (Scott).....	3	New York A (Hoyt).....	0	At Polo Grounds
Oct. 7—New York N (McQuillan).....	4	New York A (Mays).....	3	At Polo Grounds
Oct. 8—New York N (Nehf).....	5	New York A (Bush).....	3	At Polo Grounds

1923—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Miller J. Huggins, New York A. L.; John J. McGraw, New York N. L.

Oct. 10—New York N (Ryan).....	5	New York A (Bush).....	4	At Yankee Stadium
Oct. 11—New York A (Pennock).....	4	New York N (McQuillan).....	2	At Polo Grounds
Oct. 12—New York N (Nehf).....	1	New York A (Jones).....	0	At Yankee Stadium
Oct. 13—New York A (Shawkey).....	8	New York N (Scott).....	4	At Polo Grounds
Oct. 14—New York A (Bush).....	8	New York N (Bentley).....	1	At Yankee Stadium
Oct. 15—New York A (Pennock).....	6	New York N (Nehf).....	4	At Polo Grounds

1924—WASHINGTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—Stanley R. Harris, Washington; John J. McGraw, New York.

Oct. 4—New York (Nehf).....	4	Washington (Johnson).....	3	At Washington (12 inn.)
Oct. 5—Washington (Zachary).....	4	New York (Bentley).....	3	At Washington
Oct. 6—New York (McQuillan).....	6	Washington (Marberry).....	4	At New York
Oct. 7—Washington (Mogridge).....	7	New York (Barnes).....	4	At New York
Oct. 8—New York (Bentley).....	6	Washington (Johnson).....	2	At New York
Oct. 9—Washington (Zachary).....	2	New York (Nehf).....	1	At Washington
Oct. 10—Washington (Johnson).....	4	New York (Bentley).....	3	At Washington (12 inn.)

1925—PITTSBURGH N. L. (4) vs. WASHINGTON A. L. (3)

Managers—William B. McKechnie, Pittsburgh; Stanley R. Harris, Washington.

Oct. 7—Washington (Johnson).....	4	Pittsburgh (Meadows).....	1	At Pittsburgh
Oct. 8—Pittsburgh (Aldridge).....	3	Washington (Coveleskie).....	2	At Pittsburgh
Oct. 10—Washington (Ferguson).....	4	Pittsburgh (Kremer).....	3	At Washington
Oct. 11—Washington (Johnson).....	4	Pittsburgh (Yde).....	0	At Washington
Oct. 12—Pittsburgh (Aldridge).....	6	Washington (Coveleskie).....	3	At Washington
Oct. 13—Pittsburgh (Kremer).....	3	Washington (Ferguson).....	2	At Pittsburgh
Oct. 15—Pittsburgh (Kremer).....	9	Washington (Johnson).....	7	At Pittsburgh

1926—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (3)

Managers—Rogers Hornsby, St. Louis; Miller J. Huggins, New York.

Oct. 2—New York (Pennock).....	2	St. Louis (Sherdel).....	1	At New York
Oct. 3—St. Louis (Alexander).....	6	New York (Shocker).....	2	At New York
Oct. 5—St. Louis (Haines).....	4	New York (Ruethe).....	0	At St. Louis
Oct. 6—New York (Hoyt).....	10	St. Louis (Reinhart).....	5	At St. Louis
Oct. 7—New York (Pennock).....	3	St. Louis (Sherdel).....	2	At St. Louis (10 inn.)
Oct. 9—St. Louis (Alexander).....	10	New York (Shawkey).....	2	At New York
Oct. 10—St. Louis (Haines).....	3	New York (Hoyt).....	2	At New York

1927—NEW YORK A. L. (4) vs. PITTSBURGH N. L. (0)

Managers—Miller J. Huggins, New York; Donie Bush, Pittsburgh.

Oct. 5—New York (Hoyt).....	5	Pittsburgh (Kremer).....	4	At Pittsburgh
Oct. 6—New York (Pipgras).....	6	Pittsburgh (Aldridge).....	2	At Pittsburgh
Oct. 7—New York (Pennock).....	8	Pittsburgh (Meadows).....	1	At New York
Oct. 8—New York (Moore).....	4	Pittsburgh (Miljus).....	3	At New York

1928—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (0)

Managers—Miller J. Huggins, New York; William B. McKechnie, St. Louis.

Oct. 4—New York (Hoyt).....	4	St. Louis (Sherdel).....	1	At New York
Oct. 5—New York (Pipgras).....	9	St. Louis (Alexander).....	3	At New York
Oct. 7—New York (Zachary).....	7	St. Louis (Haines).....	3	At St. Louis
Oct. 9—New York (Hoyt).....	7	St. Louis (Sherdel).....	3	At St. Louis

1929—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Joseph V. McCarthy, Chicago.

Oct. 8—Philadelphia (Ehmke).....	3	Chicago (Root).....	1	At Chicago
Oct. 9—Philadelphia (Earnshaw).....	9	Chicago (Malone).....	3	At Chicago
Oct. 11—Chicago (Bush).....	3	Philadelphia (Earnshaw).....	1	At Philadelphia
Oct. 12—Philadelphia (Rommel).....	10	Chicago (Blake).....	8	At Philadelphia
Oct. 14—Philadelphia (Walberg).....	3	Chicago (Malone).....	2	At Philadelphia

1930—PHILADELPHIA A. L. (4) vs. ST. LOUIS N. L. (2)

Managers—Connie Mack, Philadelphia; Gabby Street, St. Louis.

Oct. 1—Philadelphia (Grove).....	5	St. Louis (Grimes).....	2	At Philadelphia
Oct. 2—Philadelphia (Earnshaw).....	6	St. Louis (Rhem).....	1	At Philadelphia
Oct. 4—St. Louis (Hallahan).....	5	Philadelphia (Walberg).....	0	At St. Louis
Oct. 5—St. Louis (Haines).....	3	Philadelphia (Grove).....	1	At St. Louis
Oct. 6—Philadelphia (Grove).....	2	St. Louis (Grimes).....	0	At St. Louis
Oct. 8—Philadelphia (Earnshaw).....	8	St. Louis (Hallahan).....	1	At Philadelphia

1931—ST. LOUIS N. L. (4) vs. PHILADELPHIA A. L. (3)

Managers—Gabby Street, St. Louis; Connie Mack, Philadelphia.

Oct. 1—Philadelphia (Grove).....	6	St. Louis (Derringer).....	2	At St. Louis
Oct. 2—St. Louis (Hallahan).....	2	Philadelphia (Earnshaw).....	0	At St. Louis
Oct. 5—St. Louis (Grimes).....	5	Philadelphia (Grove).....	2	At Philadelphia
Oct. 6—Philadelphia (Earnshaw).....	3	St. Louis (Johnson).....	0	At Philadelphia
Oct. 7—St. Louis (Hallahan).....	5	Philadelphia (Hoyt).....	1	At Philadelphia
Oct. 9—Philadelphia (Grove).....	8	St. Louis (Derringer).....	1	At St. Louis
Oct. 10—St. Louis (Grimes).....	4	Philadelphia (Earnshaw).....	2	At St. Louis

1932—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles J. Grimm, Chicago.

Sept. 28—New York (Ruffing).....	12	Chicago (Bush).....	6	At New York
Sept. 29—New York (Gomez).....	5	Chicago (Warneke).....	2	At New York
Oct. 1—New York (Pipgras).....	7	Chicago (Root).....	5	At Chicago
Oct. 2—New York (Moore).....	13	Chicago (May).....	6	At Chicago

1933—NEW YORK N. L. (4) vs. WASHINGTON A. L. (1)

Managers—William H. Terry, New York; Joseph E. Cronin, Washington.

Oct. 3—New York (Hubbell).....	4	Washington (Stewart).....	2	At New York
Oct. 4—New York (Schumacher).....	6	Washington (Crowder).....	1	At New York
Oct. 5—Washington (Whitehill).....	4	New York (Fitzsimmons).....	0	At Washington
Oct. 6—New York (Hubbell).....	2	Washington (Weaver).....	1	At Washington (11 inn.)
Oct. 7—New York (Luque).....	4	Washington (Russell).....	3	At Washington (10 inn.)

1934—ST. LOUIS N. L. (4) vs. DETROIT A. L. (3)

Managers—Frank F. Frisch, St. Louis; Gordon S. Cochrane, Detroit.

Oct. 3—St. Louis (J. Dean).....	8	Detroit (Crowder).....	3	At Detroit
Oct. 4—Detroit (Rowe).....	3	St. Louis (W. Walker).....	2	At Detroit (12 inn.)
Oct. 5—St. Louis (P. Dean).....	4	Detroit (Bridges).....	1	At St. Louis
Oct. 6—Detroit (Auker).....	10	St. Louis (W. Walker).....	4	At St. Louis
Oct. 7—Detroit (Bridges).....	3	St. Louis (J. Dean).....	1	At St. Louis
Oct. 8—St. Louis (P. Dean).....	4	Detroit (Rowe).....	3	At Detroit
Oct. 9—St. Louis (J. Dean).....	11	Detroit (Auker).....	0	At Detroit

1935—DETROIT A. L. (4) vs. CHICAGO N. L. (2)

Managers—Gordon S. Cochrane, Detroit; Charles J. Grimm, Chicago.

Oct. 2—Chicago (Warneke).....	3	Detroit (Rowe).....	0	At Detroit
Oct. 3—Detroit (Bridges).....	8	Chicago (Root).....	3	At Detroit
Oct. 4—Detroit (Rowe).....	6	Chicago (French).....	5	At Chicago (11 inn.)
Oct. 5—Detroit (Crowder).....	2	Chicago (Carleton).....	1	At Chicago
Oct. 6—Chicago (Warneke).....	3	Detroit (Rowe).....	1	At Chicago
Oct. 7—Detroit (Bridges).....	4	Chicago (French).....	3	At Detroit

1936—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Sept. 30—Giants (Hubbell).....	6	Yankees (Ruffing).....	1	At Polo Grounds
Oct. 2—Yankees (Gomez).....	18	Giants (Schumacher).....	4	At Polo Grounds
Oct. 3—Yankees (Hadley).....	2	Giants (Fitzsimmons).....	1	At Yankee Stadium
Oct. 4—Yankees (Pearson).....	5	Giants (Hubbell).....	2	At Yankee Stadium
Oct. 5—Giants (Schumacher).....	5	Yankees (Malone).....	4	At Yankee Stadium (10 inn.)
Oct. 6—Yankees (Gomez).....	13	Giants (Fitzsimmons).....	5	At Polo Grounds

1937—NEW YORK A. L. (4) vs. NEW YORK N. L. (1)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Oct. 6—Yankees (Gomez).....	8	Giants (Hubbell).....	1	At Yankee Stadium
Oct. 7—Yankees (Ruffing).....	8	Giants (Melton).....	1	At Yankee Stadium
Oct. 8—Yankees (Pearson).....	5	Giants (Schumacher).....	1	At Polo Grounds
Oct. 9—Giants (Hubbell).....	7	Yankees (Hadley).....	3	At Polo Grounds
Oct. 10—Yankees (Gomez).....	4	Giants (Melton).....	2	At Polo Grounds

1938—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Gabby Hartnett, Chicago.

Oct. 5—New York (Ruffing).....	3	Chicago (Lee).....	1	At Chicago
Oct. 6—New York (Gomez).....	6	Chicago (Dean).....	3	At Chicago
Oct. 8—New York (Pearson).....	5	Chicago (Bryant).....	2	At New York
Oct. 9—New York (Ruffing).....	8	Chicago (Lee).....	3	At New York

1939—NEW YORK A. L. (4) vs. CINCINNATI N. L. (0)

Managers—Joseph V. McCarthy, New York; William B. McKechnie, Cincinnati.

Oct. 4—New York (Ruffing).....	2	Cincinnati (Derringer).....	1	At New York
Oct. 5—New York (Pearson).....	4	Cincinnati (Walters).....	0	At New York
Oct. 7—New York (Hadley).....	7	Cincinnati (Thompson).....	3	At Cincinnati
Oct. 8—New York (Murphy).....	7	Cincinnati (Walters).....	4	At Cincinnati (10 inn.)

1940—CINCINNATI N. L. (4) vs. DETROIT A. L. (3)

Managers—William B. McKechnie, Cincinnati; Del Baker, Detroit.

Oct. 2—Detroit (Newsom).....	7	Cincinnati (Derringer).....	2	At Cincinnati
Oct. 3—Cincinnati (Walters).....	5	Detroit (Rowe).....	3	At Cincinnati
Oct. 4—Detroit (Bridges).....	7	Cincinnati (Turner).....	4	At Detroit
Oct. 5—Cincinnati (Derringer).....	5	Detroit (Trout).....	2	At Detroit
Oct. 6—Detroit (Newsom).....	8	Cincinnati (Thompson).....	0	At Detroit
Oct. 7—Cincinnati (Walters).....	4	Detroit (Rowe).....	0	At Cincinnati
Oct. 8—Cincinnati (Derringer).....	2	Detroit (Newsom).....	1	At Cincinnati

1941—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Joseph V. McCarthy, New York; Leo E. Durocher, Brooklyn.

Oct. 1—New York (Ruffing).....	3	Brooklyn (Davis).....	2	At New York
Oct. 2—Brooklyn (Wyatt).....	3	New York (Chandler).....	2	At New York
Oct. 4—New York (Russo).....	2	Brooklyn (Casey).....	1	At Brooklyn
Oct. 5—New York (Murphy).....	7	Brooklyn (Casey).....	4	At Brooklyn
Oct. 6—New York (Bonham).....	3	Brooklyn (Wyatt).....	1	At Brooklyn

1942—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (1)

Managers—William Southworth, St. Louis; Joseph V. McCarthy, New York.

Sept. 30—New York (Ruffing).....	7	St. Louis (M. Cooper).....	4	At St. Louis
Oct. 1—St. Louis (Beazley).....	4	New York (Bonham).....	3	At St. Louis
Oct. 3—St. Louis (White).....	2	New York (Chandler).....	0	At New York
Oct. 4—St. Louis (Lanier).....	9	New York (Donald).....	6	At New York
Oct. 5—St. Louis (Beazley).....	4	New York (Ruffing).....	2	At New York

1943—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (1)

Managers—Joseph V. McCarthy, New York; William Southworth, St. Louis.

Oct. 5—New York (Chandler).....	4	St. Louis (Lanier).....	2	At New York
Oct. 6—St. Louis (M. Cooper).....	4	New York (Bonham).....	3	At New York
Oct. 7—New York (Borowy).....	6	St. Louis (Brazle).....	2	At New York
Oct. 10—New York (Russo).....	2	St. Louis (Brecheen).....	1	At St. Louis
Oct. 11—New York (Chandler).....	2	St. Louis (M. Cooper).....	0	At St. Louis

1944—ST. LOUIS N. L. (4) vs. ST. LOUIS A. L. (2)

Managers—William Southworth, Cardinals; Luke Sewell, Browns.

Oct. 4—Browns (Galehouse).....	2	Cardinals (M. Cooper).....	1	At Sportsman's Park
Oct. 5—Cardinals (Donnelly).....	3	Browns (Muncief).....	2	At Sportsman's Pk. (11 inn.)
Oct. 6—Browns (Kramer).....	6	Cardinals (Wilks).....	2	At Sportsman's Park
Oct. 7—Cardinals (Brecheen).....	5	Browns (Jakucki).....	1	At Sportsman's Park
Oct. 8—Cardinals (M. Cooper).....	2	Browns (Galehouse).....	0	At Sportsman's Park
Oct. 9—Cardinals (Lanier).....	3	Browns (Potter).....	1	At Sportsman's Park

1945—DETROIT A. L. (4) vs. CHICAGO N. L. (3)

Managers—Steve O'Neill, Detroit; Charles J. Grimm, Chicago.

Oct. 3—Chicago (Borowy).....	9	Detroit (Newhouser).....	0	At Detroit
Oct. 4—Detroit (Trucks).....	4	Chicago (Wyse).....	1	At Detroit
Oct. 5—Chicago (Passeau).....	3	Detroit (Overmire).....	0	At Detroit
Oct. 6—Detroit (Trout).....	4	Chicago (Prim).....	1	At Chicago
Oct. 7—Detroit (Newhouser).....	8	Chicago (Borowy).....	4	At Chicago
Oct. 8—Chicago (Borowy).....	8	Detroit (Trout).....	7	At Chicago (12 inn.)
Oct. 10—Detroit (Newhouser).....	9	Chicago (Borowy).....	3	At Chicago

1946—ST. LOUIS N. L. (4) vs. BOSTON A. L. (3)

Managers—Eddie Dyer, St. Louis; Joseph E. Cronin, Boston.

Oct. 6—Boston (Johnson).....	3	St. Louis (Pollet).....	2	At St. Louis (10 inn.)
Oct. 7—St. Louis (Brecheen).....	3	Boston (Harris).....	0	At St. Louis
Oct. 9—Boston (Ferriss).....	4	St. Louis (Dickson).....	0	At Boston
Oct. 10—St. Louis (Munger).....	12	Boston (Hughson).....	3	At Boston
Oct. 11—Boston (Dobson).....	6	St. Louis (Brazle).....	3	At Boston
Oct. 13—St. Louis (Brecheen).....	4	Boston (Harris).....	1	At St. Louis
Oct. 15—St. Louis (Brecheen).....	4	Boston (Klinger).....	3	At St. Louis

1947—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Stanley R. Harris, New York; Burton E. Shotton, Brooklyn.

Sept. 30—New York (Shea).....	5	Brooklyn (Branca).....	3	At New York
Oct. 1—New York (Reynolds).....	10	Brooklyn (Lombardi).....	3	At New York
Oct. 2—Brooklyn (Casey).....	9	New York (Newsom).....	8	At Brooklyn
Oct. 3—Brooklyn (Casey).....	3	New York (Bevens).....	2	At Brooklyn
Oct. 4—New York (Shea).....	2	Brooklyn (Barney).....	1	At Brooklyn
Oct. 5—Brooklyn (Branca).....	8	New York (Page).....	6	At New York
Oct. 6—New York (Page).....	5	Brooklyn (Gregg).....	2	At New York

1948—CLEVELAND A. L. (4) vs. BOSTON N. L. (2)

Managers—Lou Boudreau, Cleveland; William Southworth, Boston.

Oct. 6—Boston (Sain).....	1	Cleveland (Feller).....	0	At Boston
Oct. 7—Cleveland (Lemon).....	4	Boston (Spahn).....	1	At Boston
Oct. 8—Cleveland (Bearden).....	2	Boston (Bickford).....	0	At Cleveland
Oct. 9—Cleveland (Gromek).....	2	Boston (Sain).....	1	At Cleveland
Oct. 10—Boston (Spahn).....	11	Cleveland (Feller).....	5	At Cleveland
Oct. 11—Cleveland (Lemon).....	4	Boston (Voiselle).....	3	At Boston

1949—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Casey Stengel, New York; Burton E. Shotton, Brooklyn.

Oct. 5—New York (Reynolds).....	1	Brooklyn (Newcombe).....	0	At New York
Oct. 6—Brooklyn (Roe).....	1	New York (Raschi).....	0	At New York
Oct. 7—New York (Page).....	4	Brooklyn (Branca).....	3	At Brooklyn
Oct. 8—New York (Lopat).....	6	Brooklyn (Newcombe).....	4	At Brooklyn
Oct. 9—New York (Raschi).....	10	Brooklyn (Barney).....	6	At Brooklyn

1950—NEW YORK A. L. (4) vs. PHILADELPHIA N. L. (0)

Managers—Casey Stengel, New York; Edwin M. Sawyer, Philadelphia.

Oct. 4—New York (Raschi).....	1	Philadelphia (Konstanty).....	0	At Philadelphia
Oct. 5—New York (Reynolds).....	2	Philadelphia (Roberts).....	1	At Philadelphia (10 inn.)
Oct. 6—New York (Ferrick).....	3	Philadelphia (Meyer).....	2	At New York
Oct. 7—New York (Ford).....	5	Philadelphia (Miller).....	2	At New York

1951—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Casey Stengel, Yankees; Leo E. Durocher, Giants.

Oct. 4—Giants (Koslo).....	5	Yankees (Reynolds).....	1	At Yankee Stadium
Oct. 5—Yankees (Lopat).....	3	Giants (Jansen).....	1	At Yankee Stadium
Oct. 6—Giants (Hearn).....	6	Yankees (Raschi).....	2	At Polo Grounds
Oct. 8—Yankees (Reynolds).....	6	Giants (Maglie).....	2	At Polo Grounds
Oct. 9—Yankees (Lopat).....	13	Giants (Jansen).....	1	At Polo Grounds
Oct. 10—Yankees (Raschi).....	4	Giants (Koslo).....	3	At Yankee Stadium

1952—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Casey Stengel, New York; Charles W. Dressen, Brooklyn.

Oct. 1—Brooklyn (Black).....	4	New York (Reynolds).....	2	At Brooklyn
Oct. 2—New York (Raschi).....	7	Brooklyn (Ersikine).....	1	At Brooklyn
Oct. 3—Brooklyn (Roe).....	5	New York (Lopat).....	3	At New York
Oct. 4—New York (Reynolds).....	2	Brooklyn (Black).....	0	At New York
Oct. 5—Brooklyn (Ersikine).....	6	New York (Sain).....	5	At New York (12 inn.)
Oct. 6—New York (Raschi).....	3	Brooklyn (Loes).....	2	At Brooklyn
Oct. 7—New York (Reynolds).....	4	Brooklyn (Black).....	2	At Brooklyn

1953—NEW YORK A. L. (4) vs. BROOKLYN N. L. (2)

Managers—Casey Stengel, New York; Charles W. Dressen, Brooklyn.

Sept. 30—New York (Sain).....	9	Brooklyn (Labine).....	5	At New York
Oct. 1—New York (Lopat).....	4	Brooklyn (Roe).....	2	At New York
Oct. 2—Brooklyn (Ersikine).....	3	New York (Raschi).....	2	At Brooklyn
Oct. 3—Brooklyn (Loes).....	7	New York (Ford).....	3	At Brooklyn
Oct. 4—New York (McDonald).....	11	Brooklyn (Podres).....	7	At Brooklyn
Oct. 5—New York (Reynolds).....	4	Brooklyn (Labine).....	3	At New York

1954—NEW YORK N. L. (4) vs. CLEVELAND A. L. (0)

Managers—Leo E. Durocher, New York; Al Lopez, Cleveland.

Sept. 29—New York (Grissom).....	5	Cleveland (Lemon).....	2	At New York
Sept. 30—New York (Antonelli).....	3	Cleveland (Wynn).....	1	At New York
Oct. 1—New York (Gomez).....	6	Cleveland (Garcia).....	2	At Cleveland
Oct. 2—New York (Liddle).....	7	Cleveland (Lemon).....	4	At Cleveland

1955—BROOKLYN N. L. (4) vs. NEW YORK A. L. (3)

Managers—Walter Alston, Brooklyn; Casey Stengel, New York.

Sept. 28—New York (Ford).....	6	Brooklyn (Newcombe).....	5	At New York
Sept. 29—New York (Byrne).....	4	Brooklyn (Loes).....	2	At New York
Sept. 30—Brooklyn (Podres).....	8	New York (Turley).....	3	At Brooklyn
Oct. 1—Brooklyn (Labine).....	8	New York (Larsen).....	5	At Brooklyn
Oct. 2—Brooklyn (Craig).....	5	New York (Grim).....	3	At Brooklyn
Oct. 3—New York (Ford).....	5	Brooklyn (Spooner).....	1	At New York
Oct. 4—Brooklyn (Podres).....	2	New York (Byrne).....	0	At New York

1956—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Casey Stengel, New York; Walter Alston, Brooklyn.

Oct. 3—Brooklyn (Maglie).....	6	New York (Ford).....	3	At Brooklyn
Oct. 5—Brooklyn (Bessent).....	13	New York (Morgan).....	8	At Brooklyn
Oct. 6—New York (Ford).....	5	Brooklyn (Craig).....	3	At New York
Oct. 7—New York (Sturdivant).....	6	Brooklyn (Ersikine).....	2	At New York
Oct. 8—New York (Larsen).....	2	Brooklyn (Maglie).....	0	At New York
Oct. 9—Brooklyn (Labine).....	1	New York (Turley).....	0	At Brooklyn (10 inn.)
Oct. 10—New York (Kucks).....	9	Brooklyn (Newcombe).....	0	At Brooklyn

1957—MILWAUKEE N. L. (4) vs. NEW YORK A. L. (3)

Managers—Fred Haney, Milwaukee; Casey Stengel, New York.

Oct. 2—New York (Ford).....	3	Milwaukee (Spahn).....	1 At New York
Oct. 3—Milwaukee (Burdette).....	4	New York (Shantz).....	2 At New York
Oct. 5—New York (Larsen).....	12	Milwaukee (Buhl).....	3 At Milwaukee
Oct. 6—Milwaukee (Spahn).....	7	New York (Grim).....	5 At Milwaukee (10 inn.)
Oct. 7—Milwaukee (Burdette).....	1	New York (Ford).....	0 At Milwaukee
Oct. 9—New York (Turley).....	3	Milwaukee (Johnson).....	2 At New York
Oct. 10—Milwaukee (Burdette).....	5	New York (Larsen).....	0 At New York

1958—NEW YORK A. L. (4) vs. MILWAUKEE N. L. (3)

Managers—Casey Stengel, New York; Fred Haney, Milwaukee.

Oct. 1—Milwaukee (Spahn).....	4	New York (Duren).....	3 At Milwaukee (10 inn.)
Oct. 2—Milwaukee (Burdette).....	13	New York (Turley).....	5 At Milwaukee
Oct. 4—New York (Larsen).....	4	Milwaukee (Rush).....	0 At New York
Oct. 5—Milwaukee (Spahn).....	3	New York (Ford).....	0 At New York
Oct. 6—New York (Turley).....	7	Milwaukee (Burdette).....	0 At New York
Oct. 8—New York (Duren).....	4	Milwaukee (Spahn).....	3 At Milwaukee (10 inn.)
Oct. 9—New York (Turley).....	6	Milwaukee (Burdette).....	2 At Milwaukee

(For 1959 World Series see index)

World Series Club Standing (Through 1958)

	Series	Won	Lost	Pct.		Series	Won	Lost	Pct.
Boston (A)	6	5	1	.833	Washington (A)	3	1	2	.333
New York (A)	24	18	6	.750	Detroit (A)	7	2	5	.286
St. Louis (N)	9	6	3	.667	Chicago (N)	10	2	8	.200
Cincinnati (N)	3	2	1	.667	Brooklyn (N)	9	1	8	.111
Cleveland (A)	3	2	1	.667	St. Louis (A)	1	0	1	.000
Chicago (A)	3	2	1	.667	Philadelphia (N)	2	0	2	.000
Philadelphia (A)	8	5	3	.625					
Milwaukee (N)	2	1	1	.500					
Boston (N)	2	1	1	.500					
Pittsburgh (N)	4	2	2	.500					
New York (N)	14	5	9	.357					

RECAPITULATION

	Won
American League	35
National League	20

NATIONAL BASEBALL HALL OF FAME

Cooperstown, N. Y.

Member	Elected	Member	Elected	Member	Elected
Alexander, Grover Cleveland.....	1938	Duffy, Hugh.....	1945	McGinnity, Joseph Jerome.....	1946
Anson, Adrian (Cap).....	1939	Evers, John Joseph.....	1946	McGraw, John Joseph.....	1937
Baker, J. Frank (Home Run).....	1955	Ewing, William B. (Buck).....	1939	Nichols, Charles A. (Kid).....	1949
Barrow, Edward Grant.....	1953	Fox, James Emory.....	1951	O'Rourke, James H.....	1945
Bender, Charles Albert (Chief).....	1953	Frisch, Frank F.....	1947	Ott, Melvin Thomas.....	1951
Bresnahan, Roger Philip.....	1945	Gehrig, Henry Louis.....	1939	Pennock, Herbert J.....	1948
Brothers, Dan.....	1945	Gehring, Charles L.....	1949	Plank, Edward S.....	1946
Brown, Mordecai (Three-Finger).....	1949	Greenberg, Henry Benjamin.....	1956	Radbourne, Charles.....	1939
Bulkeley, Morgan G.....	1937	Griffith, Clark C.....	1946	Robinson, Wilbert.....	1945
Burkett, Jesse C.....	1946	Grove, Robert Moses (Lefty).....	1947	Ruth, George Herman (Babe).....	1936
Cartwright, Alexander Joy.....	1938	Hartnett, Charles L. (Gabby).....	1955	Schalk, Raymond.....	1955
Chadwick, Henry.....	1938	Heilmann, Harry E.....	1952	Simmons, Aloysius Harry.....	1953
Chance, Frank LeRoy.....	1946	Hornsby, Rogers.....	1942	Sisler, George Harold.....	1939
Chesbro, John Dwight.....	1946	Hubbell, Carl Owen.....	1947	Spalding, Albert Goodwill.....	1939
Clarke, Fred C.....	1945	Jennings, Hughie.....	1945	Speaker, Tristram E.....	1937
Cobb, Tyrus Raymond.....	1936	Johnson, Byron Bancroft.....	1937	Terry, William H.....	1954
Cochrane, Gordon (Mickey).....	1947	Johnson, Walter Perry.....	1936	Tinkers, Joseph B.....	1946
Collins, Edward Trowbridge.....	1939	Keeler, Willie.....	1939	Traynor, Harold J. (Pie).....	1948
Collins, James J.....	1945	Kelly, Michael J. (King).....	1945	Vance, Arthur C. (Dazzy).....	1955
Comiskey, Charles Albert.....	1939	Klem, William Joseph.....	1953	Waddell, George E. (Rube).....	1946
Connolly, Thomas H.....	1953	Lajoie, Napoleon.....	1937	Wagner, John P. (Honus).....	1936
Crawford, Samuel E.....	1957	Landis, Kenesaw Mountain.....	1944	Wallace, Roderick John.....	1953
Cronin, Joseph Edward.....	1956	Lyons, Theodore Amar.....	1955	Walsh, Edward A.....	1946
Cummings, William Arthur.....	1939	Mack, Connie.....	1937	Waner, Paul G.....	1952
Dean, Jay Hanna (Dizzy).....	1953	Maranville, Walter J. (Rabbit).....	1954	Wheat, Zachary Davis.....	1959
Delahanty, Edward J.....	1945	Mathewson, Christopher.....	1936	Wright, George.....	1937
Dickey, William M.....	1954	McCarthy, Joseph V.....	1957	Wright, Harry.....	1953
DiMaggio, Joseph Paul.....	1955	McCarthy, Thomas F.....	1946	Young, Denton T. (Cy).....	1937

National League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.	Year	Club	Manager	Won	Lost	Pct.
1876	Chicago	Albert G. Spalding	52	14	.788	1918	Chicago	Fred L. Mitchell	84	45	.651
1877	Boston	Harry Wright	31	17	.646	1919*	Cincinnati	Patrick J. Moran	96	44	.686
1878	Boston	Harry Wright	41	19	.683	1920	Brooklyn	Wilbert Robinson	93	61	.604
1879	Providence	George Wright	59	25	.702	1921*	New York	John J. McGraw	94	59	.614
1880	Chicago	Adrian C. Anson	67	17	.798	1922*	New York	John J. McGraw	93	61	.604
1881	Chicago	Adrian C. Anson	56	28	.667	1923	New York	John J. McGraw	95	58	.621
1882	Chicago	Adrian C. Anson	55	29	.655	1924	New York	John J. McGraw	93	60	.608
1883	Boston	John F. Morrill	63	35	.643	1925*	Pittsburgh	William B. McKechnie	95	58	.621
1884	Providence	Frank C. Bancroft	84	28	.750	1926*	St. Louis	Rogers Hornsby	89	65	.578
1885	Chicago	Adrian C. Anson	87	25	.777	1927	Pittsburgh	Owen J. Bush	94	60	.610
1886	Chicago	Adrian C. Anson	90	34	.726	1928	St. Louis	William B. McKechnie	95	59	.617
1887	Detroit	W. H. Watkins	79	45	.637	1929	Chicago	Joseph V. McCarthy	98	54	.647
1888	New York	James J. Mutrie	84	47	.641	1930	St. Louis	Charles E. Street	92	62	.595
1889	New York	James J. Mutrie	83	43	.659	1931*	St. Louis	Charles E. Street	101	53	.656
1890	Brooklyn	William H. McGinnigle	86	43	.667	1932	Chicago	Charles J. Grimm	90	64	.584
1891	Boston	Frank G. Selee	87	51	.630	1933*	New York	William H. Terry	91	61	.599
1892	Boston	Frank G. Selee	102	48	.680	1934*	St. Louis	Frank F. Frisch	95	58	.621
1893	Boston	Frank G. Selee	86	43	.667	1935	Chicago	Charles J. Grimm	100	54	.649
1894	Baltimore	Edward H. Hanlon	89	39	.695	1936	New York	William H. Terry	92	62	.597
1895	Baltimore	Edward H. Hanlon	87	43	.669	1937	New York	William H. Terry	95	57	.625
1896	Baltimore	Edward H. Hanlon	90	39	.698	1938	Chicago	Charles L. Hartnett	89	63	.586
1897	Boston	Frank G. Selee	93	39	.705	1939	Cincinnati	William B. McKechnie	97	57	.630
1898	Boston	Frank G. Selee	102	47	.685	1940*	Cincinnati	William B. McKechnie	100	53	.654
1899	Brooklyn	Edward H. Hanlon	88	42	.677	1941	Brooklyn	Leo E. Durocher	100	54	.649
1900	Brooklyn	Edward H. Hanlon	82	54	.603	1942*	St. Louis	William H. Southworth	106	48	.688
1901	Pittsburgh	Fred C. Clarke	90	49	.647	1943	St. Louis	William H. Southworth	105	49	.682
1902	Pittsburgh	Fred C. Clarke	103	36	.741	1944*	St. Louis	William H. Southworth	105	49	.682
1903	Pittsburgh	Fred C. Clarke	91	49	.650	1945	Chicago	Charles J. Grimm	98	56	.636
1904†	New York	John J. McGraw	106	47	.693	1946*	St. Louis	Edwin H. Dyer	98	58	.628
1905*	New York	John J. McGraw	105	48	.686	1947	Brooklyn	Burton E. Shotton	94	60	.610
1906	Chicago	Frank L. Chance	116	36	.763	1948	Boston	William H. Southworth	91	62	.595
1907*	Chicago	Frank L. Chance	107	45	.704	1949	Brooklyn	Burton E. Shotton	97	57	.630
1908*	Chicago	Frank L. Chance	99	55	.643	1950	Philadelphia	Edwin M. Sawyer	91	63	.591
1909*	Pittsburgh	Fred C. Clarke	110	42	.724	1951	New York	Leo E. Durocher	98	59	.624
1910	Chicago	Frank L. Chance	104	50	.675	1952	Brooklyn	Charles W. Dressen	96	57	.627
1911	New York	John J. McGraw	99	54	.647	1953	Brooklyn	Charles W. Dressen	99	52	.656
1912	New York	John J. McGraw	103	48	.682	1954*	New York	Leo E. Durocher	97	57	.630
1913	New York	John J. McGraw	101	51	.664	1955*	Brooklyn	Walter Alston	98	55	.641
1914*	Boston	George T. Stallings	94	59	.614	1956	Brooklyn	Walter Alston	93	61	.604
1915	Philadelphia	Patrick J. Moran	90	62	.592	1957*	Milwaukee	Fred Haney	95	59	.617
1916	Brooklyn	Wilbert Robinson	94	60	.610	1958	Milwaukee	Fred Haney	92	62	.597
1917	New York	John J. McGraw	98	56	.636						

* World Series winner. † No World Series.

MOST VALUABLE PLAYERS

(Baseball Writers Association selections)

American League

1931	Lefty Grove, Philadelphia	1950	Phil Rizzuto, New York
1932-33	Jimmy Foxx, Philadelphia	1951	Yogi Berra, New York
1934	Mickey Cochrane, Detroit	1952	Bobby Shantz, Philadelphia
1935	Hank Greenberg, Detroit	1953	Al Rosen, Cleveland
1936	Lou Gehrig, New York	1954-55	Yogi Berra, New York
1937	Charley Gehring, Detroit	1956-57	Mickey Mantle, New York
1938	Jimmy Foxx, Boston	1958	Jackie Jensen, Boston
1939	Joe DiMaggio, New York		
1940	Hank Greenberg, Detroit		
1941	Joe DiMaggio, New York		
1942	Joe Gordon, New York		
1943	Spurgeon Chandler, New York		
1944-45	Hal Newhouser, Detroit		
1946	Ted Williams, Boston		
1947	Joe DiMaggio, New York		
1948	Lou Boudreau, Cleveland		
1949	Ted Williams, Boston		

National League

1940	Frank McCormick, Cincinnati
1941	Dolph Camilli, Brooklyn
1942	Mort Cooper, St. Louis
1943	Stan Musial, St. Louis
1944	Marty Marion, St. Louis
1945	Phil Cavarretta, Chicago
1946	Stan Musial, St. Louis
1947	Bob Elliott, Boston
1948	Stan Musial, St. Louis
1949	Jackie Robinson, Brooklyn
1950	Jim Konstanty, Philadelphia
1951	Roy Campanella, Brooklyn
1952	Hank Sauer, Chicago
1953	Roy Campanella, Brooklyn
1954	Willie Mays, New York
1955	Roy Campanella, Brooklyn
1956	Don Newcombe, Brooklyn
1957	Henry Aaron, Milwaukee
1958	Ernie Banks, Chicago

American League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.	Year	Club	Manager	Won	Lost	Pct.
1901	Chicago	Clark C. Griffith	83	53	.610	1930*	Philadelphia	Connie Mack	102	52	.662
1902	Philadelphia	Connie Mack	83	53	.610	1931	Philadelphia	Connie Mack	107	45	.704
1903*	Boston	James J. Collins	91	47	.659	1932*	New York	Joseph V. McCarthy	107	47	.695
1904†	Boston	James J. Collins	95	59	.617	1933	Washington	Joseph E. Cronin	99	53	.651
1905	Philadelphia	Connie Mack	92	56	.622	1934	Detroit	Gordon S. Cochrane	101	53	.656
1906*	Chicago	Fielder A. Jones	93	58	.616	1935*	Detroit	Gordon S. Cochrane	93	58	.616
1907	Detroit	Hugh A. Jennings	92	58	.613	1936*	New York	Joseph V. McCarthy	102	51	.667
1908	Detroit	Hugh A. Jennings	90	63	.588	1937*	New York	Joseph V. McCarthy	102	52	.662
1909	Detroit	Hugh A. Jennings	98	54	.645	1938*	New York	Joseph V. McCarthy	99	53	.651
1910*	Philadelphia	Connie Mack	102	48	.680	1939*	New York	Joseph V. McCarthy	106	45	.702
1911*	Philadelphia	Connie Mack	101	50	.669	1940	Detroit	Delmar D. Baker	90	64	.584
1912*	Boston	J. Garland Stahl	105	47	.691	1941*	New York	Joseph V. McCarthy	101	53	.656
1913*	Philadelphia	Connie Mack	96	57	.627	1942	New York	Joseph V. McCarthy	103	51	.669
1914	Philadelphia	Connie Mack	99	53	.651	1943*	New York	Joseph V. McCarthy	98	56	.636
1915*	Boston	William F. Carrigan	101	50	.669	1944	St. Louis	James L. Sewell	89	65	.578
1916*	Boston	William F. Carrigan	91	63	.591	1945*	Detroit	Stephen F. O'Neill	88	65	.575
1917*	Chicago	Clarence H. Rowland	100	54	.649	1946	Boston	Joseph E. Cronin	104	50	.675
1918*	Boston	Edward G. Barrow	75	51	.595	1947*	New York	Stanley R. Harris	97	57	.630
1919	Chicago	William Gleason	88	52	.629	1948*	Cleveland	Louis Boudreau	97	58	.626
1920*	Cleveland	Tris E. Speaker	98	56	.636	1949*	New York	Casey Stengel	97	57	.630
1921	New York	Miller J. Huggins	98	55	.641	1950*	New York	Casey Stengel	98	56	.636
1922	New York	Miller J. Huggins	94	60	.610	1951*	New York	Casey Stengel	98	56	.636
1923*	New York	Miller J. Huggins	98	54	.645	1952*	New York	Casey Stengel	95	59	.617
1924*	Washington	Stanley R. Harris	92	62	.597	1953*	New York	Casey Stengel	99	52	.656
1925	Washington	Stanley R. Harris	96	55	.636	1954	Cleveland	Alfonso R. Lopez	111	43	.721
1926	New York	Miller J. Huggins	91	63	.591	1955	New York	Casey Stengel	96	58	.623
1927*	New York	Miller J. Huggins	110	44	.714	1956*	New York	Casey Stengel	97	57	.630
1928*	New York	Miller J. Huggins	101	53	.656	1957	New York	Casey Stengel	98	56	.636
1929*	Philadelphia	Connie Mack	104	46	.693	1958*	New York	Casey Stengel	92	62	.597

* World Series winner. † No World Series.

MAJOR LEAGUE STATISTICS

lf—Left-field foul line; cf—center field; rf—right-field foul line. (2)—Indicates double-header.

American League

Club, nickname and grounds	Distance, feet			Seating capacity	Record		Date
	lf	cf	rf		attendance	Visiting club	
Baltimore Orioles—Memorial Stadium	309	410	309	47,778	46,796	New York (2)	May 16, 1954
Boston Red Sox—Fenway Park	315	420	302	34,819	41,766	New York (2)	Aug. 12, 1934
Chicago White Sox—Comiskey Park	352	415	352	46,550	54,215	New York (2)	July 19, 1953
Cleveland Indians—Municipal Stadium	320	410	320	73,811	84,587	New York (2)	Sept. 12, 1954
Detroit Tigers—Briggs Stadium	340	440	325	52,904	58,369	New York (2)	July 20, 1947
Kansas City Athletics—Municipal Stadium	330	421	353	30,611	33,585	New York (2, night)	July 24, 1955
New York Yankees—Yankee Stadium	301	461	296	70,000	81,841	Boston (2)	May 30, 1938
Washington Senators—Griffith Stadium	350	401	320	28,669	35,563	New York (2)	July 4, 1936

National League

Chicago Cubs—Wrigley Field	355	400	353	36,755	46,965	Pittsburgh (2)	May 31, 1948
Cincinnati Redlegs—Crosley Field	328	387	366	30,322	36,961	Pittsburgh (2)	Apr. 27, 1947
Los Angeles Dodgers—Memorial Coliseum*	251	420	300	94,600	78,672	San Francisco	Apr. 18, 1958
Milwaukee Braves—County Stadium	320	420	315	43,827	47,604	Cincinnati (2)	Sept. 3, 1956
Philadelphia Phillies—Connie Mack Stadium	334	447	329	33,359	40,720	Brooklyn (2)	May 11, 1947
Pittsburgh Pirates—Forbes Field	365	457	300	35,000	44,932	Brooklyn	Sept. 23, 1956
St. Louis Cardinals—Busch Stadium	351	426	310	30,500	45,770	Chicago (2)	July 12, 1931
San Francisco Giants—Seals Stadium*	365	415	355	22,900	23,192	Los Angeles	Apr. 15, 1958

* Park used in 1959.

MAJOR LEAGUE FRANCHISE SHIFTS

1953—Boston Braves (N. L.) became Milwaukee Braves. Home attendance, last season in Boston (1952), 281,278; first season in Milwaukee (1953), 1,826,397.	(1954), 627,100; first season in Kansas City (1955), 1,393,054.
1954—St. Louis Browns (A. L.) became Baltimore Orioles. Home attendance, last season in St. Louis (1953), 297,238; first season in Baltimore (1954), 1,060,910.	1958—New York Giants (N. L.) became San Francisco Giants. Home attendance, last season in New York (1957), 653,923; first season in San Francisco (1958), 1,272,625.
1955—Philadelphia Athletics (A. L.) became Kansas City Athletics. Home attendance, last season in Philadelphia	1958—Brooklyn Dodgers (N. L.) became Los Angeles Dodgers. Home attendance, last season in Brooklyn (1957), 1,028,258; first season in Los Angeles (1958), 1,845,556.

National League Batting Champions

Year		Avg.	Year		Avg.	Year		Avg.
1876	Roscoe Barnes, Chi.	.404	1903	Honus Wagner, Pitts.	.355	1931	Chick Hafey, St. L.	.349
1877	Jim White, Bost.	.385	1904	Honus Wagner, Pitts.	.349	1932	Lefty O'Doul, Bklyn.	.368
1878	Abner Dalrymple, Mil.	.356	1905	Cy Seymour, Cin.	.377	1933	Chuck Klein, Phila.	.368
1879	Cap Anson, Chi.	.407	1906	Honus Wagner, Pitts.	.339	1934	Paul Waner, Pitts.	.362
1880	George Gore, Chi.	.365	1907	Honus Wagner, Pitts.	.350	1935	Arky Vaughan, Pitts.	.385
1881	Cap Anson, Chi.	.399	1908	Honus Wagner, Pitts.	.354	1936	Paul Waner, Pitts.	.373
1882	Dan Brouthers, Buff.	.367	1909	Honus Wagner, Pitts.	.339	1937	Joe Medwick, St. L.	.374
1883	Dan Brouthers, Buff.	.371	1910	Sherwood Magee, Phila.	.331	1938	Ernie Lombardi, Cin.	.342
1884	James O'Rourke, Buff.	.350	1911	Honus Wagner, Pitts.	.334	1939	John Mize, St. L.	.349
1885	Roger Connor, N. Y.	.371	1912	Henry Zimmerman, Chi.	.372	1940	Debs Garms, Pitts.	.355
1886	King Kelly, Chi.	.388	1913	Jake Daubert, Bklyn.	.350	1941	Pete Reiser, Bklyn.	.343
1887	Cap Anson, Chi.	.421	1914	Jake Daubert, Bklyn.	.329	1942	Ernie Lombardi, Bost.	.330
1888	Cap Anson, Chi.	.343	1915	Larry Doyle, N. Y.	.320	1943	Stan Musial, St. L.	.357
1889	Dan Brouthers, Bost.	.373	1916	Hal Chase, Cin.	.339	1944	Dixie Walker, Bklyn.	.357
1890	John Glasscock, N. Y.	.336	1917	Edd Roush, Cin.	.341	1945	Phil Cavaretta, Chi.	.355
1891	Wm. Hamilton, Phila.	.338	1918	Zach Wheat, Bklyn.	.335	1946	Stan Musial, St. L.	.365
1892	Dan Brouthers, Bklyn., and Clarence Childs, Cleve.	.335	1919	Edd Roush, Cin.	.321	1947	Harry Walker, St. L.-Phila.	.363
1893	Hugh Duffy, Bost.	.378	1920	Rogers Hornsby, St. L.	.370	1948	Stan Musial, St. L.	.376
1894	Hugh Duffy, Bost.	.438	1921	Rogers Hornsby, St. L.	.397	1949	Jackie Robinson, Bklyn.	.342
1895	Jesse Burkett, Cleve.	.423	1922	Rogers Hornsby, St. L.	.401	1950	Stan Musial, St. L.	.346
1896	Jesse Burkett, Cleve.	.410	1923	Rogers Hornsby, St. L.	.384	1951	Stan Musial, St. L.	.355
1897	Willie Keeler, Balt.	.432	1924	Rogers Hornsby, St. L.	.424	1952	Stan Musial, St. L.	.336
1898	Willie Keeler, Balt.	.379	1925	Rogers Hornsby, St. L.	.403	1953	Carl Furillo, Bklyn.	.344
1899	Ed Delahanty, Phila.	.408	1926	Gene Hargrave, Cin.	.353	1954	Willie Mays, N. Y.	.345
1900	Honus Wagner, Pitts.	.381	1927	Paul Waner, Pitts.	.380	1955	Richie Ashburn, Phila.	.338
1901	Jesse Burkett, St. L.	.382	1928	Rogers Hornsby, Bost.	.387	1956	Henry Aaron, Mil.	.328
1902	Clarence Beaumont, Pitts.	.357	1929	Lefty O'Doul, Phila.	.398	1957	Stan Musial, St. L.	.351
			1930	Bill Terry, N. Y.	.401	1958	Richie Ashburn, Phila.	.350

American League Batting Champions

Year		Avg.	Year		Avg.	Year		Avg.
1901	Nap Lajoie, Phila.	.422	1921	Harry Heilmann, Det.	.394	1941	Ted Williams, Bost.	.406
1902	Ed Delahanty, Wash.	.376	1922	George Sisler, St. L.	.420	1942	Ted Williams, Bost.	.356
1903	Nap Lajoie, Cleve.	.355	1923	Harry Heilmann, Det.	.403	1943	Luke Appling, Chi.	.328
1904	Nap Lajoie, Cleve.	.381	1924	Babe Ruth, N. Y.	.378	1944	Lou Boudreau, Cleve.	.327
1905	Elmer Flick, Cleve.	.306	1925	Harry Heilmann, Det.	.393	1945	George Sternweiss, N. Y.	.309
1906	George Stone, St. L.	.358	1926	Heinie Manush, Det.	.378	1946	Mickey Vernon, Wash.	.353
1907	Ty Cobb, Det.	.350	1927	Harry Heilmann, Det.	.398	1947	Ted Williams, Bost.	.343
1908	Ty Cobb, Det.	.324	1928	Goose Goslin, Wash.	.379	1948	Ted Williams, Bost.	.369
1909	Ty Cobb, Det.	.377	1929	Lew Fonseca, Cleve.	.369	1949	George Kell, Det.	.343
1910	Ty Cobb, Det.	.385	1930	Al Simmons, Phila.	.381	1950	Billy Goodman, Bost.	.354
1911	Ty Cobb, Det.	.420	1931	Al Simmons, Phila.	.390	1951	Ferris Fain, Phila.	.344
1912	Ty Cobb, Det.	.410	1932	Dale Alexander, Det.-Bost.	.367	1952	Ferris Fain, Phila.	.327
1913	Ty Cobb, Det.	.390	1933	Jimmy Foxx, Phila.	.356	1953	Mickey Vernon, Wash.	.337
1914	Ty Cobb, Det.	.368	1934	Lou Gehrig, N. Y.	.363	1954	Bobby Avila, Cleve.	.341
1915	Ty Cobb, Det.	.369	1935	Buddy Myer, Wash.	.349	1955	Al Kaline, Det.	.340
1916	Tris Speaker, Cleve.	.386	1936	Luke Appling, Chi.	.388	1956	Mickey Mantle, N. Y.	.353
1917	Ty Cobb, Det.	.383	1937	Charles Gehringer, Det.	.371	1957	Ted Williams, Bost.	.388
1918	Ty Cobb, Det.	.382	1938	Jimmy Foxx, Bost.	.349	1958	Ted Williams, Bost.	.328
1919	Ty Cobb, Det.	.384	1939	Joe DiMaggio, N. Y.	.381			
1920	George Sisler, St. L.	.407	1940	Joe DiMaggio, N. Y.	.352			

MAJOR LEAGUE ATTENDANCE RECORDS

Single game—78,672, San Francisco at Los Angeles (N. L.), Apr. 18, 1958.

Doubleheader—84,587, New York at Cleveland (A. L.), Sept. 12, 1954.

Night—78,382, Chicago at Cleveland (A. L.), Aug. 20, 1948.

Season, home—2,620,627, Cleveland (A. L.), 1948.

Season, road—1,871,545, New York (A. L.), 1949.

Season, league—11,150,099, American League, 1948.

World Series, single game—92,706, Chicago (A. L.) at Los Angeles (N. L.), Oct. 6, 1959.

World Series, all games (6)—420,784, Chicago (A. L.) and Los Angeles (N. L.), 1959.

Year		No.	Year		No.	Year		No.
1876	George Hall, Phila. Athletics...	5	1904	Harry Lumley, Bklyn.....	9	1932	Chuck Klein, Phila., and	
1877	George Shaffer, Louisville.....	3	1905	Fred Odwell, Cin.....	9		Mel Ott, N. Y.....	38
1878	Paul Hines, Providence.....	4	1906	Tim Jordan, Bklyn.....	12	1933	Chuck Klein, Phila.....	28
1879	Charles Jones, Bost.....	9	1907	David Brain, Bost.....	10	1934	Mel Ott, N. Y., and	
1880	James O'Rourke, Bost. and		1908	Tim Jordan, Bklyn.....	12		Rip Collins, St. L.....	35
	Harry Stovey, Worcester.....	6	1909	John Murray, N. Y.....	7	1935	Wally Berger, Bost.....	34
1881	Dan Brouters, Buffalo.....	8	1910	Fred Beck, Bost., and		1936	Mel Ott, N. Y.....	33
1882	George Wood, Det.....	7		Frank Schulte, Chi.....	10	1937	Mel Ott, N. Y., and	
1883	William Ewing, N. Y.....	10	1911	Frank Schulte, Chi.....	21		Joe Medwick, St. L.....	31
1884	Ed Williamson, Chi.....	27	1912	Henry Zimmerman, Chi.....	14	1938	Mel Ott, N. Y.....	36
1885	Abner Dalrymple, Chi.....	11	1913	Cliff Cravath, Phila.....	19	1939	John Mize, St. L.....	28
1886	Arthur Richardson, Det.....	11	1914	Cliff Cravath, Phila.....	19	1940	John Mize, St. L.....	40
1887	Roger Connor, N. Y., and		1915	Cliff Cravath, Phila.....	24	1941	Dolph Camilli, Bklyn.....	34
	Wm. O'Brien, Wash.....	17	1916	Davis Robertson, N. Y., and		1942	Mel Ott, N. Y.....	30
1888	Roger Connor, N. Y.....	14		Fred Williams, Chi.....	12	1943	Bill Nicholson, Chi.....	29
1889	Sam Thompson, Phila.....	20	1917	Davis Robertson, N. Y., and		1944	Bill Nicholson, Chi.....	33
1890	Tom Burns, Bklyn., and			Cliff Cravath, Phila.....	12	1945	Tommy Holmes, Bost.....	28
	Mike Tiernan, N. Y.....	13	1918	Cliff Cravath, Phila.....	8	1946	Ralph Kiner, Pitts.....	23
1891	Harry Stovey, Bost., and		1919	Cliff Cravath, Phila.....	12	1947	Ralph Kiner, Pitts., and	
	Mike Tiernan, N. Y.....	16	1920	Cy Williams, Phila.....	15		John Mize, N. Y.....	51
1892	Jim Holliday, Cin.....	13	1921	George Kelly, N. Y.....	23	1948	Ralph Kiner, Pitts., and	
1893	Ed Delehanty, Phila.....	19	1922	Rogers Hornsby, St. L.....	42		John Mize, N. Y.....	40
1894	Hugh Duffy, Bost., and		1923	Cy Williams, Phila.....	41	1949	Ralph Kiner, Pitts.....	54
	Robert Lowe, Bost.....	18	1924	Jacques Fournier, Bklyn.....	27	1950	Ralph Kiner, Pitts.....	47
1895	Bill Joyce, Wash.....	17	1925	Rogers Hornsby, St. L.....	39	1951	Ralph Kiner, Pitts.....	42
1896	Ed Delahanty, Phila., and		1926	Hack Wilson, Chi.....	21	1952	Ralph Kiner, Pitts., and	
	Sam Thompson, Phila.....	13	1927	Hack Wilson, Chi., and			Hank Sauer, Chi.....	37
1897	Nap Lajoie, Phila.....	10		Cy Williams, Phila.....	30	1953	Ed Mathews, Mil.....	47
1898	James Collins, Bost.....	14	1928	Hack Wilson, Chi., and		1954	Ted Kluszewski, Cin.....	49
1899	John Freeman, Wash.....	25		Jim Bottomley, St. L.....	31	1955	Willie Mays, N. Y.....	51
1900	Herman Long, Bost.....	12	1929	Chuck Klein, Phila.....	43	1956	Duke Snider, Bklyn.....	43
1901	Sam Crawford, Cin.....	16	1930	Hack Wilson, Chi.....	56	1957	Henry Aaron, Mil.....	44
1902	Tom Leach, Pitts.....	6	1931	Chuck Klein, Phila.....	31	1958	Ernie Banks, Chi.....	47
1903	James Sheekard, Bklyn.....	9						

1901	Nap Lajoie, Phila.	13	1920	Babe Ruth, N. Y.	54	1939	Jimmy Foxx, Phila.	35
1902	Ralph Seybold, Phila.	16	1921	Babe Ruth, N. Y.	59	1940	Hank Greenberg, Det.	41
1903	Buck Freeman, Bost.	13	1922	Ken Williams, St. L.	39	1941	Ted Williams, Bost.	37
1904	Harry Davis, Phila.	10	1923	Babe Ruth, N. Y.	41	1942	Ted Williams, Bost.	36
1905	Harry Davis, Phila.	8	1924	Babe Ruth, N. Y.	46	1943	Rudy York, Det.	34
1906	Harry Davis, Phila.	12	1925	Bob Meusel, N. Y.	33	1944	Nick Etten, N. Y.	22
1907	Harry Davis, Phila.	8	1926	Babe Ruth, N. Y.	47	1945	Vern Stephens, St. L.	24
1908	Sam Crawford, Det.	7	1927	Babe Ruth, N. Y.	60	1946	Hank Greenberg, Det.	44
1909	Ty Cobb, Det.	9	1928	Babe Ruth, N. Y.	54	1947	Ted Williams, Bost.	32
1910	J. Garland Stahl, Bost.	10	1929	Babe Ruth, N. Y.	46	1948	Joe DiMaggio, N. Y.	39
1911	Franklin Baker, Phila.	9	1930	Babe Ruth, N. Y.	49	1949	Ted Williams, Bost.	43
1912	Franklin Baker, Phila.	10	1931	Babe Ruth, N. Y., and Lou Gehrig, N. Y.	46	1950	Al Rosen, Cleve.	37
1913	Franklin Baker, Phila.	12				1951	Gus Zernial, Phila.	33
1914	Franklin Baker, Phila., and Sam Crawford, Det.	8	1932	Jimmy Foxx, Phila.	58	1952	Larry Doby, Cleve.	32
1915	Robert Roth, Chi.-Cleve.	7	1933	Jimmy Foxx, Phila.	48	1953	Al Rosen, Cleve.	43
1916	Wally Pipp, N. Y.	12		Lou Gehrig, N. Y.	49	1954	Larry Doby, Cleve.	32
1917	Wally Pipp, N. Y.	9	1935	Jimmy Foxx, Phila., and Hank Greenberg, Det.	36	1955	Mickey Mantle, N. Y.	37
1918	Babe Ruth, Bost., and Clarence Walker, Phila.	11	1936	Lou Gehrig, N. Y.	49	1956	Mickey Mantle, N. Y.	52
1919	Babe Ruth, Bost.	29	1937	Joe DiMaggio, N. Y.	46	1957	Roy Sievers, Wash.	42
			1938	Hank Greenberg, Det.	58	1958	Mickey Mantle, N. Y.	42

Regular Season			1923	New York (A)....	41	1934	New York (A)....	22	1927	New York (A)....	2
Year	Club	No.	1924	New York (A)....	46	1935	Boston (N).....	6	1928	New York (A)....	3
			1925 <th>New York (A)....</th> <th>25</th> <td></td> <td></td> <td></td> <td>1932 <th>New York (A)....</th> <th>2</th> </td>	New York (A)....	25				1932 <th>New York (A)....</th> <th>2</th>	New York (A)....	2
1914	Boston (A).....	0	1926 <td>New York (A)....</td> <td>47</td> <td colspan="3">World Series</td> <td colspan="3">All-Star Game</td>	New York (A)....	47	World Series			All-Star Game		
1915	Boston (A).....	4	1927 <td>New York (A)....</td> <td>60</td> <td>Year</td> <td>Club</td> <td>No.</td> <td>Year</td> <td>Club</td> <td>No.</td>	New York (A)....	60	Year	Club	No.	Year	Club	No.
1916	Boston (A).....	3	1928 <td>New York (A)....</td> <td>54</td> <td>1915</td> <td>Boston (A).....</td> <td>0</td> <td>1933</td> <td>American.....</td> <td>1</td>	New York (A)....	54	1915	Boston (A).....	0	1933	American.....	1
1917	Boston (A).....	2	1929 <td>New York (A)....</td> <td>46</td> <td>1916</td> <td>Boston (A).....</td> <td>0</td> <td>1934</td> <td>American.....</td> <td>0</td>	New York (A)....	46	1916	Boston (A).....	0	1934	American.....	0
1918	Boston (A).....	11	1930 <td>New York (A)....</td> <td>49</td> <td>1918</td> <td>Boston (A).....</td> <td>0</td> <td colspan="3">Totals</td>	New York (A)....	49	1918	Boston (A).....	0	Totals		
1919	Boston (A).....	29	1931 <td>New York (A)....</td> <td>46</td> <td>1921 <td>New York (A)....</td> <td>1</td> <td>Regular season.....</td> <td>714</td> <td></td> </td>	New York (A)....	46	1921 <td>New York (A)....</td> <td>1</td> <td>Regular season.....</td> <td>714</td> <td></td>	New York (A)....	1	Regular season.....	714	
1920	New York (A)....	54	1932 <td>New York (A)....</td> <td>41</td> <td>1922 <td>New York (A)....</td> <td>0</td> <td>World Series.....</td> <td>15</td> <td></td> </td>	New York (A)....	41	1922 <td>New York (A)....</td> <td>0</td> <td>World Series.....</td> <td>15</td> <td></td>	New York (A)....	0	World Series.....	15	
1921	New York (A)....	59	1933 <td>New York (A)....</td> <td>34</td> <td>1923 <td>New York (A)....</td> <td>3</td> <td>All-Star.....</td> <td>1</td> <td></td> </td>	New York (A)....	34	1923 <td>New York (A)....</td> <td>3</td> <td>All-Star.....</td> <td>1</td> <td></td>	New York (A)....	3	All-Star.....	1	
1922	New York (A)....	35				1926 <td>New York (A)....</td> <td>4</td> <td></td> <td></td> <td></td>	New York (A)....	4			

Major League Individual All-Time Records

Highest Batting Average—438, Hugh Duffy, Boston N. L., 1894. (Since 1900—424, Rogers Hornsby, St. Louis N. L., 1924).

Most Years Led League in Batting—12, Ty Cobb, Detroit A. L., 1907–15, 1917–19.

Most Years Batted .300 or Better—23, Ty Cobb, Detroit A. L., 1906–26, Philadelphia A. L., 1927–28.

Most hits—4,191, Ty Cobb, Detroit A. L., 1905–26, Philadelphia, 1927–28.

Most Hits, Season—257, George Sisler, St. Louis A. L., 1920.

Most Hits, Game (9 innings)—7, Wilbert Robinson, Baltimore N. L., 6 singles, 1 double, 1892. (Since 1900—6, by many.)

Most Hits, Game (extra innings)—9, John Burnette, Cleveland A. L., 18 innings, 7 singles, 2 doubles, 1932.

Most Hits in Succession—12, Mike Higgins, Boston A. L., in four games, 1938; Walt Dropo, Detroit A. L., in three games, 1952.

Most Consecutive Games Batted Safely—56, Joe DiMaggio, New York A. L., 1941.

Most Runs—2,244, Ty Cobb, Detroit A. L., 1905–26, Philadelphia 1927–28.

Most Runs, Season—196, William Hamilton, Philadelphia N. L., 1894. (Since 1900—177, Babe Ruth, New York A. L., 1921).

Most Runs, Game—7, Guy Hecker, Louisville A. A., 1886. (Since 1900—6, by many.)

Most Runs Batted In—2,209, Babe Ruth, Boston A. L., 1914–19, New York A. L., 1920–34, Boston N. L., 1935.

Most Runs Batted In, Season—190, Hack Wilson, Chicago N. L., 1930.

Most Runs Batted In, Game—12, Jim Bottomley, St. Louis N. L., 1924.

Most Home Runs—714, Babe Ruth, Boston A. L., 1915–19, New York A. L., 1920–34, Boston N. L., 1935.

Most Home Runs, Season—60, Babe Ruth, New York A. L., 1927.

Most Home Runs, Game—4, Robert Lowe, Boston N. L.,

1894; Ed Delahanty, Philadelphia N. L., 1896; Lou Gehrig, New York A. L., 1932; Chuck Klein, Philadelphia N. L., 1936; Pat Seerey, Chicago A. L., 1948; Gil Hodges, Brooklyn N. L., 1950; Joe Adcock, Milwaukee N. L., 1954; Rocky Colavito, Cleveland A. L., 1959.

Most Home Runs with Bases Filled—23, Lou Gehrig, New York A. L., 1927–38.

Most 2-Base Hits—793, Tris Speaker, Boston A. L., 1907–15, Cleveland A. L., 1916–26, Washington A. L., 1927, Philadelphia A. L., 1928.

Most 2-Base Hits, Season—67, Earl Webb, Boston A. L., 1931.

Most 2-Base Hits, Game—4, by many.

Most 3-Base Hits—312, Sam Crawford, Cincinnati N. L., 1899–1902, Detroit A. L., 1903–17.

Most 3-Base Hits, Season—36, Owen Wilson, Pittsburgh N. L., 1912.

Most 3-Base Hits, Game—4, George Strief, Philadelphia A. A., 1885; William Joyce, New York N. L., 1897. (Since 1900—3, by many.)

Most Games Played—3,033, Ty Cobb, Detroit A. L., 1905–26, Philadelphia A. L., 1927–28.

Most Consecutive Games Played—2,130, Lou Gehrig, New York A. L., 1925–39.

Most Bases on Balls—2,056, Babe Ruth, Boston A. L., 1915–19; New York A. L., 1920–34, Boston N. L., 1935.

Most Bases on Balls, Season—170, Babe Ruth, New York A. L., 1923.

Most Bases on Balls, Game—4, Walter Willmot, Chicago N. L., 1891; Jimmy Foxx, Boston A. L., 1938.

Most Strikeouts—1,330, Babe Ruth, Boston A. L., 1914–19, New York A. L., 1920–34, Boston N. L., 1935.

Most Strikeouts, Season—138, Jim Lemon, Washington A. L., 1956.

Most Strikeouts, Game (9 innings)—5, by many.

Most Strikeouts, Game (extra innings)—6, Carl Weilman, St. Louis A. L., 15 innings, 1913; Don Hoak, Chicago N. L., 17 innings, 1956.

Fewest Strikeouts, Season (150 or more games)—4, Joe Sewell, Cleveland A. L., 1925 and 1929.

PITCHING

Most Games Won—511, Cy Young, Cleveland N. L., 1890–98, St. Louis N. L., 1899–1900, Boston A. L., 1901–08, Cleveland A. L., 1909–11, Boston N. L., 1911.

Most Games Won, Season—60, Charles Radbourne, Providence N. L., 1884. (Since 1900—41, Jack Chesbro, New York A. L., 1904.)

Most Consecutive Games Won—24, Carl Hubbell, New York N. L., 1936 (16) and 1937 (8).

Most Consecutive Games Won, Season—19, Timothy Keefe, New York N. L., 1888; Rube Marquard, New York N. L., 1912.

Most Years Won 20 or More Games—16, Cy Young, Cleveland N. L., 1891–98, St. Louis N. L., 1899–1900, Boston A. L., 1901–04, 1907–08.

Most Shutouts—113, Walter Johnson, Washington A. L., 1907–27.

Most shutouts, season—16, Grover Alexander, Philadelphia N. L., 1916.

Most Consecutive Shutouts—5, Harris White, Chicago A. L., 1904.

Most Consecutive Scoreless Innings—56, Walter Johnson, Washington A. L., 1913.

Most Strikeouts—3,497, Walter Johnson, Washington A. L., 1907–27.

Most Strikeouts, Season—505; Matthew Kilroy, Baltimore A. A., 1886. (Since 1900—348, Bob Feller, Cleveland A. L., 1946.)

Most Strikeouts, Game—19, Charles Sweeney, Providence N. L., 1884. (Since 1900—18, Bob Feller, Cleveland A. L., 1938; Sandy Koufax, Los Angeles N. L., 1959.)

Most Consecutive Strikeouts—9, Michael Welch, New York N. L., 1884. (Since 1900—8, Max Surkont, Milwaukee N. L., 1953.)

Most Games Season—75, William White, Cincinnati N. L., 1879. (Since 1900—74, Jim Konstanty, Philadelphia N. L., 1950.)

Most Complete Games, Season—74, William White, Cincinnati N. L., 1879. (Since 1900—48, Jack Chesbro, New York A. L., 1904.)

LIFETIME WORLD SERIES RECORDS

Most hits—61, Yogi Berra, New York A. L., 1947, 1949–53, 1955–58.

Most runs—37, Babe Ruth, Boston A. L., 1915–16, 1918, New York A. L., 1921–23, 1926–28, 1932.

Most runs batted in—35, Lou Gehrig, New York A. L., 1926–28, 1932, 1936–38.

Most home runs—15, Babe Ruth, Boston A. L., 1915–16,

1918, New York A. L., 1921–23, 1926–28, 1932.

Most bases on balls—33, Babe Ruth, Boston A. L., 1915–16, 1918, New York A. L., 1921–23, 1926–28, 1932.

Most strikeouts—33, Duke Snider, Brooklyn N. L., 1949, 1952–53, 1955–56, 1959.

Most times, member of winning team—9, Joe DiMaggio, New York A. L., 1936–39, 1941, 1947, 1949–51.

MAJOR LEAGUE ALL-STAR GAME

A.L.—American League. N.L.—National League.

Year	Date	Winning league and manager	Runs	Losing league and manager	Runs	Winning pitcher	Losing pitcher	Site	Paid attendance
1933	July 6	A.L. (Mack).....	4	N.L. (McGraw).....	2	Gomez	Hallahan	Chicago A.L.	49,200
1934	July 10	A.L. (Cronin).....	9	N.L. (Terry).....	7	Harder	Mungo	New York N.L.	48,363
1935	July 8	A.L. (Cochrane).....	4	N.L. (Frisch).....	1	Gomez	Walker	Cleveland A.L.	69,812
1936	July 7	N.L. (Grimm).....	4	A.L. (McCarthy).....	3	J. Dean	Grove	Boston N.L.	25,534
1937	July 7	A.L. (McCarthy).....	8	N.L. (Terry).....	3	Gomez	J. Dean	Washington A.L.	31,391
1938	July 6	N.L. (Terry).....	4	A.L. (McCarthy).....	1	Vander Meer	Gomez	Cincinnati N.L.	27,607
1939	July 11	A.L. (McCarthy).....	3	N.L. (Hartnett).....	1	Bridges	Lee	New York A.L.	62,892
1940	July 9	N.L. (McKechnie).....	4	A.L. (Cronin).....	0	Derringer	Ruffing	St. Louis N.L.	32,373
1941	July 8	A.L. (Baker).....	7	N.L. (McKechnie).....	5	E. Smith	Passeau	Detroit A.L.	54,674
1942	July 6	A.L. (McCarthy).....	3	N.L. (Durocher).....	1	Chandler	Cooper	New York N.L.	33,694
1943	July 13*	A.L. (McCarthy).....	5	N.L. (Southworth).....	3	Leonard	Cooper	Philadelphia A.L.	31,938
1944	July 11*	N.L. (Southworth).....	7	A.L. (McCarthy).....	1	Raffensberger	Hughson	Pittsburgh N.L.	29,589
1945	No game.								
1946	July 9	A.L. (O'Neill).....	12	N.L. (Grimm).....	0	Feller	Passeau	Boston A.L.	34,906
1947	July 8	A.L. (Cronin).....	2	N.L. (Dyer).....	1	Shea	Sain	Chicago N.L.	41,123
1948	July 13	A.L. (Harris).....	5	N.L. (Durocher).....	2	Raschi	Schmitz	St. Louis A.L.	34,009
1949	July 12	A.L. (Boudreau).....	11	N.L. (Southworth).....	7	Trucks	Newcombe	Brooklyn N.L.	32,577
1950	July 11	N.L. (Shotton).....	4	A.L. (Stengel).....	3a	Blackwell	Gray	Chicago A.L.	46,127
1951	July 10	N.L. (Sawyer).....	8	A.L. (Stengel).....	3	Maglie	Lopat	Detroit A.L.	52,075
1952	July 8	N.L. (Durocher).....	3	A.L. (Stengel).....	2b	Rush	Lemon	Philadelphia N.L.	32,785
1953	July 14	N.L. (Dressen).....	5	A.L. (Stengel).....	1	Spahn	Reynolds	Cincinnati N.L.	30,846
1954	July 13	A.L. (Stengel).....	11	N.L. (Alston).....	9	Stone	Conley	Cleveland A.L.	68,751
1955	July 12	N.L. (Durocher).....	6	A.L. (Lopez).....	5c	Conley	Sullivan	Milwaukee N.L.	45,314
1956	July 10	N.L. (Alston).....	7	A.L. (Stengel).....	3	Friend	Pierce	Washington A.L.	28,843
1957	July 9	A.L. (Stengel).....	6	N.L. (Alston).....	5	Bunning	Simmons	St. Louis N.L.	30,693
1958	July 8	A.L. (Stengel).....	4	N.L. (Haney).....	3	Wynn	Friend	Baltimore A.L.	48,829

* Night game. aFourteen innings. bFive innings, rain. cTwelve innings.

Larsen's Perfect Game in '56 World Series

Don Larsen of the New York Yankees pitched the first no-run no-hit game in World Series history in 1956 and hurled a perfect game in so doing. Facing the Brooklyn Dodgers at the Yankee Stadium

in the fifth game of the series on Oct. 8, Larsen retired 27 batters in a row. The righthander made only 97 pitches. The Yankees won, 2 to 0. The attendance was 64,519. The box score:

BROOKLYN (N)

	ab	r	h	po	a	e
Gilliam, 2b.....	3	0	0	2	0	0
Reese, ss.....	3	0	0	4	2	0
Snider, cf.....	3	0	0	1	0	0
Robinson, 3b.....	3	0	0	2	4	0
Hodges, 1b.....	3	0	0	5	1	0
Amoros, lf.....	3	0	0	3	0	0
Furillo, rf.....	3	0	0	0	0	0
Campanella, c.....	3	0	0	7	2	0
Maglie, p.....	2	0	0	0	1	0
aMitchell.....	1	0	0	0	0	0
Totals.....	27	0	0	24	10	0

aCalled out on strikes for Maglie in 9th.

Brooklyn.....	0	0	0	0	0	0	0	—	0
New York.....	0	0	0	1	0	1	0	0	x—2

Runs batted in—Mantle, Bauer. Home run—Mantle. Sacrifice—Larsen. Double plays—Reese and Hodges; Hodges, Campanella, Robinson, Campanella and Robinson. Left on bases—Brooklyn 0, New York 3. Bases on balls—Off Maglie 2 (Slaughter, McDougald). Struck out—By Larsen 7 (Gilliam, Reese, Hodges, Campanella, Snider, Gilliam, Mitchell), Maglie 5 (Martin, Collins 2, Larsen, Bauer). Runs and earned runs—Off Larsen 0-0, Maglie 2-2. Umpires—Pinelli (N), plate; Soar (A), first base; Boggess (N), second base; Napp (A), third base; Gorman (N), left field; Runge (A), right field. Time of game—2:06.

Longest Game in the Majors

A 26-inning tie between the Brooklyn Dodgers and the Boston Braves of the National League on May 1, 1920, was the longest game in major league history. Played at Braves Field, Boston, the game was called because of darkness with the score 1-1. Brooklyn scored its run in the fourth inning and Boston matched it in

the fifth. Both starting pitchers, Leon Cadore of Brooklyn and Joe Oeschger were still in the game at the end, 3 hours and 50 minutes after it had begun. Cadore allowed 15 hits and Oeschger 9. Cadore struck out 7 and walked 5; Oeschger fanned 7, walked 4.

JUNIOR WORLD SERIES

International League vs. American Association

No series 1905, 1908-16, 1918-19, 1935.

Games				Games			
Year	Winner	W	L	Year	Winner	W	L
1904	Buffalo (IL)	2	1	1938	Kansas City (AA)	4	3
1906*	Buffalo (IL)	3	2	1939	Louisville (AA)	4	3
1907	Toronto (IL)	4	1	1940	Newark (IL)	4	2
1917	Indianapolis (AA)	4	1	1941	Columbus (AA)	4	2
1920	Baltimore (IL)	5	1	1942	Columbus (AA)	4	1
1921	Louisville (AA)	5	3	1943	Columbus (AA)	4	1
1922	Baltimore (IL)	5	2	1944	Baltimore (IL)	4	2
1923	Kansas City (AA)	5	4	1945	Louisville (AA)	4	2
1924*	St. Paul (AA)	5	4	1946	Montreal (IL)	4	2
1925	Baltimore (IL)	5	3	1947	Milwaukee (AA)	4	3
1926	Toronto (IL)	5	0	1948	Montreal (IL)	4	1
1927	Toledo (AA)	5	1	1949	Indianapolis (AA)	4	2
1928*	Indianapolis (AA)	5	1	1950	Columbus (AA)	4	1
1929	Kansas City (AA)	5	4	1951	Milwaukee (AA)	4	2
1930	Rochester (IL)	5	3	1952	Rochester (IL)	4	3
1931	Rochester (IL)	5	3	1953	Montreal (IL)	4	1
1932	Newark (IL)	4	2	1954	Louisville (AA)	4	2
1933	Columbus (AA)	5	3	1955	Minneapolis (AA)	4	3
1934	Columbus (AA)	5	4	1956	Indianapolis (AA)	4	0
1936	Milwaukee (AA)	4	1	1957	Denver (AA)	4	1
1937	Newark (IL)	4	3	1958	Minneapolis (AA)	4	0

* Played tie game.

National Baseball Congress Champions

(Non-Pro)

1935	Bismarck (N. D.) Corwin-Churchill	1947	Ft. Wayne (Ind.) General Electrics
1936	Duncan (Okla.) Halliburtons	1948	Ft. Wayne (Ind.) General Electrics
1937	Enid (Okla.) Eason Oilers	1949	Ft. Wayne (Ind.) General Electrics
1938	Buford (Ga.) Bona Allens	1950	Ft. Wayne (Ind.) Capeharts
1939	Duncan (Okla.) Halliburtons	1951	Sinton (Tex.) Plymouth Oilers
1940	Enid (Okla.) Champlins	1952	Fort Meyer (Va.) Colonials
1941	Enid (Okla.) Champlins	1953	Fort Leonard Wood (Mo.) Hilltoppers
1942	Wichita (Kan.) Boeing Bombers	1954	Wichita (Kan.) Boeing Bombers
1943	Camp Wheeler (Ga.) Spokes	1955	Wichita (Kan.) Boeing Bombers
1944	Sherman Field (Kans.) Flyers	1956	Ft. Wayne (Ind.) Dairymen
1945	Enid (Okla.) Army Air Field	1957	Sinton (Tex.) Plymouth Oilers
1946	St. Joseph (Mich.) Auscos	1958	Drain (Ore.) Black Sox

SOFTBALL

Source: Amateur Softball Association.

World Amateur Champions

MEN		WOMEN	
1933	J. L. Gillis, Chicago	1933	Great Northerns, Chicago
1934	Ke-Nash-A's, Kenosha, Wis.	1934	Hart Motors, Chicago
1935	Crimson Coaches, Toledo, Ohio	1935	Bloomer Girls, Cleveland
1936	Kodak Park, Rochester, N. Y.	1936-37	National Mfg. Co., Cleveland
1937	Briggs Mfg. Co., Detroit	1938-39	J. J. Kreig's, Alameda, Calif.
1938	Pohlers, Cincinnati	1940	Arizona Ramblers, Phoenix, Ariz.
1939	Carr's, Covington, Ky.	1941	Higgins, Midgets, Tulsa, Okla.
1940	Kodak Park, Rochester, N. Y.	1942-43	Jax Maids, New Orleans
1941	Bendix Brakes, South Bend, Ind.	1944	Lind & Pomeroy, Portland, Ore.
1942	Deep Rock Oilers, Tulsa, Okla.	1945-47	Jax Maids, New Orleans
1943-44	Hammer Field, Fresno, Calif.	1948-49	Arizona Ramblers, Phoenix
1945-47	Zollners, Ft. Wayne, Ind.	1950-52	Orange (Calif.) Lionettes
1948	Briggs Beautyware, Detroit	1953	Betsy Ross Rockets, Fresno, Calif.
1949	Tip Top Tailors, Toronto, Ont.	1954	Leach Motors Rockets, Fresno, Calif.
1950	Clearwater (Fla.) Bombers	1955-56	Orange (Calif.) Lionettes
1951	Dow Chemical Co., Midland, Mich.	1957	Hacienda Rockets, Fresno, Calif.
1952-53	Briggs Beautyware, Detroit	1958	Raybestos Brakettes, Stratford, Conn.
1954	Clearwater (Fla.) Bombers		
1955	Raybestos Cardinals, Stratford, Conn.		

FAMOUS BASEBALL NICKNAMES

Nickname	Given name(s)	Surname	Nickname	Given name(s)	Surname
Babe	Charles Benjamin	Adams	Hans	John Bernard	Lobert
Smokey	Walter Emmons	Alston	Whitey	Carroll Walter	Lockman
Cap	Adrian Constantine	Anson	Schnoaz	Ernesto Natali	Lombardi
Home Run	John Franklin	Baker	Heinie	Henry Emmett	Manush
Gus	David Russell	Bell	The Barber	Salvatore Anthony	Maglie
Chief	Charles Albert	Bender	Rabbit	Walter James	Maranville
Yogi	Lawrence Peter	Berra	Slats	Martin Whiteford	Marion
Three-Finger	Mordecai Peter	Brown	Rube	Richard William	Marquard
Smoky	Forrest Harrell	Burgess	Billy	Alfred Manuel	Martin
Donie	Owen Joseph	Bush	Pepper	John Leonard	Martin
Chico	Alfonso	Carrasquel	Big Six	Christopher	McGinnity
Mickey	Gordon Stanley	Cochrane	Iron Man	Joseph Jerome	McGinnity
Doc	Roger Maxwell	Cramer	Ducky	Joseph Michael	Medwick
Wahoo	Samuel Earl	Crawford	Irish	Emil Frederick	Meusel
Kiki	Hazen Shirley	Cuyler	Bing	Edmund John	Miller
Dizzy	Jay Hanna	Dean	Minnie	Saturnino Orestes	Minoso
Daffy	Paul Dee	Dean	The Man	Stanley Frank	Musial
Yankee Clipper	Joseph Paul	DiMaggio	Bobo	Louis Norman	Newsom
Lippy	Leo Ernest	Durocher	Lefty	Frank Joseph	O'Doul
Buck	William Buckingham	Ewing	Pee Wee	Harold Henry	Reese
Whitey	Edward Charles	Ford	Muddy	Herold Dominic	Ruel
Nellie	Jacob Nelson	Fox	Red	Charles Herbert	Ruffing
Junior	James	Gilliam	Babe	George Herman	Ruth
Lefty	Vernon	Gomez	Red	Albert Fred	Schoendienst
Flash	Joseph Lowell	Gordon	Twinkletoes	George Alexander	Selkirk
Goose	Leon Allen	Goslin	Country	Enos Bradsher	Slaughter
Heinie	Henry Knight	Groh	Duke	Edwin Donald	Snider
Lefty	Robert Moses	Grove	Casey	Charles Dillon	Stengel
Mule	George William	Haas	Birdie	George Robert	Tebbetts
Bump	Irving Darius	Hadley	Pie	Harold Joseph	Traynor
Chick	Charles James	Hafey	Dazzy	Arthur Charles	Vance
Bubbles	Eugene Franklin	Hargrave	Arky	Joseph Floyd	Vaughan
Bucky	Stanley Raymond	Harris	Mickey	James Barton	Vernon
Gabby	Charles Leo	Hartnett	Rube	George Edward	Waddell
Babe	Floyd Caves	Herman	Honus	John Peter	Wagner
Pinky	Michael Franklin	Higgins	Rube	George Francis	Walberg
Rajah	Rogers	Hornsby	Dixie	Frederick E.	Walker
Stonewall	Travis Calvin	Jackson	Bucky	William Henry	Walters
Baby Doll	William C.	Jacobson	Little Poison	Lloyd James	Waner
Puddin' Head	Willie Edward	Jones	Big Poison	Paul Glee	Waner
High Pockets	George Lange	Kelly	Cy	Frederick	Williams
Red	Ralph	Kress	Splendid Splinter	Theodore Samuel	Williams
Cookie	Harry Arthur	Lavagetto	Hack	Lewis Robert	Wilson
Dutch	Emil John	Leonard	Cy	Denton True	Young

U. S. SKI JUMPING RECORDS

Source: Harold A. Grinden, Historian, National Ski Association of America, Duluth, Minn.

Year	Made by and place	Feet	Year	Made by and place	Feet
1887	Mikkel Hemmestvedt, Red Wing, Minn.	37	1939	Alf Engen, Big Pines, Calif.	251
1904	T. Walters, Ishpeming, Mich.	82	1939	Bob Roecker, Iron Mountain, Mich.	257
1905	Julius Kulstad, Ishpeming, Mich.	97½	1941	Torger Tokle, Leavenworth, Wash.	273
1907	Ole Feiring, Duluth, Minn.	112	1941	Torger Tokle, Olympian Hill, Hyak, Wash.	288
1907	Ole Mangseth, Red Wing, Minn.	114	1942	Torger Tokle, Iron Mountain, Mich.	289
1908	John Evenson, Duluth, Minn.	116	1949	Sverre Kongsgaard, Hyak, Wash.	290
1908	John Mangseth, Duluth, Minn.	117	1949	Joe Perrault, Iron Mountain, Mich.	297
1908	John Evenson, Ishpeming, Mich.	122	1950	Art Devlin, Steamboat Springs, Colo.	307
1909	Ole Larson, Eau Claire, Wis.	131	1951	Ansten Samuelstuen, Steamboat Springs	316
1910	Oscar Gunderson, Chippewa Falls, Wis.	138			
1910	August Nordby, Ishpeming, Mich.	140			
1911	Anders Haugen, Ironwood, Mich.	152			
1913	Ragnar Omtvedt, Ironwood, Mich.	154-158-169			
1916	Ragnar Omtvedt, Steamboat Springs, Colo.	192½			
1917	Henry Hall, Steamboat Springs, Colo.	203			
1919	Anders Haugen, Dillon, Colo.	213			
1919	Lars Haugen, Steamboat Springs, Colo.	214			
1920	Anders Haugen, Dillon, Colo.	214			
1932	Glen Armstrong, Salt Lake City	224			
1934	John Elvrum, Big Pines, Calif.	240			
1937	Alf Engen, Salt Lake City, Utah	244.42			

U. S. RECORDS BY CLASSES

Class A—Ansten Samuelstuen, Norway, at Steamboat Springs, Colo., Feb. 18, 1951	316
Class B—Fred Murphy, Duluth (Minn.) Ski Club, at Steamboat Springs, Colo., Feb. 25, 1950	286
Class C (Junior A)—Marvin Crawford, Steamboat Winter Sports Club, at Steamboat Springs, Colo., Feb. 25, 1950	290
Veterans (32 and over)—Lloyd Severude, Eau Claire Winter Sports Club, at Steamboat Springs, Colo., Feb. 14, 1953	247

FOOTBALL

THE PASTIME of kicking a ball around goes back beyond the limits of recorded history. Ancient savage tribes played football of a primitive kind. There was a ball-kicking game played by Athenians and Spartans and Corinthians 2500 years ago and the Greeks had a name for it: *Episkuros*. The Romans had a somewhat similar game called *Harpastum* and are supposed to have carried the game with them when they invaded the British Isles in the First Century, B.C.

Undoubtedly the game known in the United States as Football traces directly to the English game of Rugby, though the modifications have been many and rather sweeping in some directions. There was informal football on our college lawns well over a century ago and an annual Freshman-Sophomore series of "scrimmages" began at Yale in 1840. But the first formal intercollegiate football game in this country was the Princeton-Rutgers contest at New Brunswick, N. J., on Nov. 6, 1869, with Rutgers winning by 6 goals to 4.

In those old days games were played with twenty-five, twenty, fifteen or eleven men on a side by mutual agreement. In 1880 there was a football convention at

which Walter Camp of Yale persuaded the delegates to agree to a rule calling for eleven players on a side. In 1882 there was adopted the rule requiring the offensive team to make 5 yards in three downs or surrender the ball to its opponents. The game grew so rough that it was attacked as brutal by many critics and some colleges abandoned the sport. Conditions were so bad in 1906 that President Theodore Roosevelt, an enthusiast for all sports, called a meeting of Yale, Harvard, and Princeton representatives at the White House in the hope of reforming and improving the game. The outcome was that the game, with the forward pass introduced and some other modifications of the rules inserted, became faster and cleaner and gradually grew to the tremendous popularity it enjoys today.

Professional football, now firmly established, is an outgrowth of intercollegiate football. The first professional game was played in 1895 at Latrobe, Pa. The National Football League was founded in 1921. The All-America Conference went into action in 1946. At the end of the 1949 season the two major play-for-pay circuits merged, retaining the name of the older league.

Famous Series Records

Army-Navy

	A	N		A	N		A	N		A	N		A	N		A	N
1880	0	24	1905	6	6	1916	15	7	1930	6	0	1940	0	14	1950	2	14
1891	32	16	1906	0	10	1919	0	6	1931	17	7	1941	6	14	1951	7	42
1892	4	12	1907	0	6	1920	0	7	1932	20	0	1942	0	14	1952	0	7
1893	4	6	1908	6	4	1921	0	7	1933	12	7	1943	0	13	1953	20	7
1899	17	5	1910	0	3	1922	17	14	1934	0	3	1944	23	7	1954	20	27
1900	7	11	1911	0	3	1923	0	0	1935	28	6	1945	32	13	1955	14	6
1901	11	5	1912	0	6	1924	12	0	1936	0	7	1946	21	18	1956	7	7
1902	22	8	1913	22	9	1925	10	3	1937	6	0	1947	21	0	1957	0	14
1903	40	5	1914	20	0	1926	21	21	1938	14	7	1948	21	21	1958	22	6
1904	11	0	1915	14	0	1927	14	9	1939	0	10	1949	38	0			

Army-Notre Dame

	A	ND		A	ND		A	ND		A	ND		A	ND		A	ND
1913	13	35	1920	17	27	1926	0	7	1932	0	21	1938	7	19	1944	59	0
1914	20	7	1921	0	28	1927	18	0	1933	12	13	1939	0	14	1945	48	0
1915	0	7	1922	0	0	1928	6	12	1934	6	12	1940	0	7	1946	0	0
1916	30	10	1923	0	13	1929	0	7	1935	6	6	1941	0	0	1947	7	27
1917	2	7	1924	7	13	1930	6	7	1936	6	20	1942	0	13	1957	21	23
1919	9	12	1925	27	0	1931	12	0	1937	0	7	1943	0	26	1958	14	2

Harvard-Yale

	H	Y		H	Y		H	Y		H	Y		H	Y		H	Y
1875	4g	0g	1891	0	10	1906	0	6	1921	10	3	1934	0	14	1949	6	29
1876	0g	1g	1892	0	6	1907	0	12	1922	10	3	1935	7	14	1950	6	14
1878	0g	1g	1893	0	6	1908	4	0	1923	0	13	1936	13	14	1951	21	21
1879	0g	0g	1894	4	12	1909	0	8	1924	6	19	1937	13	6	1952	14	41
1880	0g	1g	1897	0	0	1910	0	0	1925	0	0	1938	7	0	1953	13	0
1881	0g	0g	1898	17	0	1911	0	0	1926	7	12	1939	7	20	1954	13	9
1882	0g	1g	1899	0	0	1912	20	0	1927	0	14	1940	28	0	1955	7	21
1883	2	23	1900	0	28	1913	15	5	1928	17	0	1941	14	0	1956	14	42
1884	0	52	1901	22	0	1914	36	0	1929	10	6	1942	3	7	1957	0	54
1886	4	29	1902	0	23	1915	41	0	1930	13	0	1945	0	28	1958	28	0
1887	8	17	1903	0	16	1916	3	6	1931	0	3	1946	14	27			
1889	0	6	1904	0	12	1919	10	3	1932	0	19	1947	21	31			
1890	12	6	1905	0	6	1920	9	0	1933	19	6	1948	20	7			

NATIONAL COLLEGE FOOTBALL CHAMPIONS

The "National Collegiate A. A. Football Guide" recognizes as unofficial national champion the team selected each year by press association polls. Where The Associated Press poll (of writers) does not agree with the United Press International poll (of coaches), the guide lists both teams selected. Prior to the press polls, the Rissman and Knute Rockne trophies, symbolic of the national title, were awarded annually from 1924 to 1936.

1924	Notre Dame	1934	Minnesota	1943	Notre Dame	1952	Michigan State
1925	Dartmouth	1935	So. Methodist	1944-45	Army	1953	Maryland
1926	Stanford	1936	Minnesota	1946-47	Notre Dame	1954	Ohio State and
1927	Illinois	1937	Pittsburgh	1948	Michigan		U. C. L. A.
1928	So. California	1938	Texas Christian	1949	Notre Dame	1955-56	Oklahoma
1929-30	Notre Dame	1939	Texas A. & M.	1950	Oklahoma	1957	Auburn and Ohio
1931	So. California	1940-41	Minnesota	1951	Tennessee		State
1932-33	Michigan	1942	Ohio State			1958	Louisiana State

PROFESSIONAL FOOTBALL

National League Champions

Year	League Champion	W	L	T	Year	League Champion	W	L	T
1921	Chicago Bears (Staley's)	10	1	1	1927	New York Giants	11	1	1
1922	Canton Bulldogs	10	0	2	1928	Providence Steamrollers	8	1	2
1923	Canton Bulldogs	11	0	1	1929	Green Bay Packers	12	0	1
1924	Cleveland Indians	7	1	1	1930	Green Bay Packers	10	3	1
1925	Chicago Cardinals	11	2	1	1931	Green Bay Packers	12	2	0
1926	Frankford Yellow Jackets	14	1	1	1932	Chicago Bears	7	1	6

Year	Eastern Conference Winners (W-L-T)	Western Conference Winners (W-L-T)	League champion, playoff result
1933	New York Giants (11-3-0)	Chicago Bears (10-2-1)	Chicago Bears 23, New York 21
1934	New York Giants (8-5-0)	Chicago Bears (13-0-0)	New York 30, Chicago Bears 13
1935	New York Giants (9-3-0)	Detroit Lions (7-3-2)	Detroit 26, New York 7
1936	Boston Redskins (7-5-0)	Green Bay Packers (10-1-1)	Green Bay 21, Boston 6
1937	Washington Redskins (8-3-0)	Chicago Bears (9-1-1)	Washington 28, Chicago Bears 21
1938	New York Giants (8-2-1)	Green Bay Packers (8-3-0)	New York 23, Green Bay 17
1939	New York Giants (9-1-1)	Green Bay Packers (9-2-0)	Green Bay 27, New York 0
1940	Washington Redskins (9-2-0)	Chicago Bears (8-3-0)	Chicago Bears 73, Washington 0
1941	New York Giants (8-3-0)	Chicago Bears (10-1-1)†	Chicago Bears 37, New York 9
1942	Washington Redskins (10-1-1)	Chicago Bears (11-0-0)	Washington 14, Chicago Bears 6
1943	Washington Redskins (6-3-1)†	Chicago Bears (8-1-1)	Chicago Bears 41, Washington 21
1944	New York Giants (8-1-1)	Green Bay Packers (8-2-0)	Green Bay 14, New York 7
1945	Washington Redskins (8-2-0)	Cleveland Rams (9-1-0)	Cleveland 15, Washington 14
1946	New York Giants (7-3-1)	Chicago Bears (8-2-1)	Chicago Bears 24, New York 14
1947	Philadelphia Eagles (8-4-0)†	Chicago Cardinals (9-3-0)	Chicago Cardinals 28, Philadelphia 21
1948	Philadelphia Eagles (9-2-1)	Chicago Cardinals (11-1-0)	Philadelphia 7, Chicago Cardinals 0
1949	Philadelphia Eagles (11-1-0)	Los Angeles Rams (8-2-2)	Philadelphia 14, Los Angeles 0
1950*	Cleveland Browns (10-2-0)†	Los Angeles Rams (9-3-0)†	Cleveland 30, Los Angeles 28
1951*	Cleveland Browns (11-1-0)	Los Angeles Rams (8-4-0)	Los Angeles 24, Cleveland 17
1952*	Cleveland Browns (8-4-0)	Detroit Lions (9-3-0)†	Detroit 17, Cleveland 7
1953	Cleveland Browns (11-1-0)	Detroit Lions (10-2-0)	Detroit 17, Cleveland 16
1954	Cleveland Browns (9-3-0)	Detroit Lions (9-2-1)	Cleveland 56, Detroit 10
1955	Cleveland Browns (9-2-1)	Los Angeles Rams (8-3-1)	Cleveland 38, Los Angeles 14
1956	New York Giants (8-3-1)	Chicago Bears (9-2-1)	New York 47, Chicago Bears 7
1957	Cleveland Browns (9-2-1)	Detroit Lions (8-4-0)†	Detroit 59, Cleveland 14
1958	New York Giants (9-3-0)†	Baltimore Colts (9-3-0)	Baltimore 23, New York 17†

* League was divided into American and National Conferences, 1950-52. † Won divisional playoff. ‡ Won at 8:15 of sudden death overtime period.

NATIONAL LEAGUE INDIVIDUAL SCORING CHAMPIONS

		TD	PAT	FG	Pts.			TD	PAT	FG	Pts.
1932	Dutch Clark, Portsmouth.....	4	6	3	39	1946	Ted Fritsch, Green Bay.....	10	13	9	100
1933	{ Ken Strong, New York.....	6	13	5	64	1947	Pat Harder, Chicago Cards.....	7	39	7	102
	{ Glenn Presnell, Portsmouth...	6	10	6	64	1948	Pat Harder, Chicago Cards.....	6	53	7	110
1934	Jack Manders, Chicago Bears	3	31	10	79	1949	{ Pat Harder, Chicago Cards.....	8	45	3	102
1935	Dutch Clark, Detroit.....	6	16	1	55		{ Gene Roberts, New York.....	17	0	0	102
1936	Dutch Clark, Detroit.....	7	19	4	73	1950	Doak Walker, Detroit.....	11	38	8	128
1937	Jack Manders, Chicago Bears	5	15	8	69	1951	Elroy Hirsch, Los Angeles.....	17	0	0	102
1938	Clark Hinkle, Green Bay.....	7	7	3	58	1952	Gordon Soltau, San Francisco..	7	34	6	94
1939	Andy Farkas, Washington.....	11	2	0	68	1953	Gordon Soltau, San Francisco..	6	48	10	114
1940	Don Hutson, Green Bay.....	7	15	0	57	1954	Robert Walston, Philadelphia..	11	36	4	114
1941	Don Hutson, Green Bay.....	12	20	0	95	1955	Doak Walker, Detroit.....	7	27	9	96
1942	Don Hutson, Green Bay.....	17	33	1	138	1956	Bobby Layne, Detroit.....	5	33	12	99
1943	Don Hutson, Green Bay.....	12	36	3	117	1957	{ Sam Baker, Washington.....	1	29	14	77
1944	Don Hutson, Green Bay.....	9	31	0	85			{ Lou Groza, Cleveland.....	0	32	15	77
1945	Steve Van Buren, Philadelphia	18	2	0	110	1958	Jimmy Brown, Cleveland.....	18	0	0	108

RECORD OF ANNUAL POSTSEASON FOOTBALL GAMES

Rose Bowl (Pasadena, Calif.)

1902	Michigan 49, Stanford 0
1916	Washington State 14, Brown 0
1917	Oregon 14, Pennsylvania 0
1918	Mare Island Marines 19, Camp Lewis 7
1919	Great Lakes 17, Mare Island Marines 0
1920	Harvard 7, Oregon 6
1921	California 28, Ohio State 0
1922	Washington & Jefferson 0, California 0
1923	Southern California 14, Penn State 3
1924	Navy 14, Washington 14
1925	Notre Dame 27, Stanford 10
1926	Alabama 20, Washington 19
1927	Alabama 7, Stanford 7
1928	Stanford 7, Pittsburgh 6
1929	Georgia Tech 8, California 7
1930	Southern California 47, Pittsburgh 14
1931	Alabama 24, Washington State 0
1932	Southern California 21, Tulane 12
1933	Southern California 35, Pittsburgh 0
1934	Columbia 7, Stanford 0
1935	Alabama 29, Stanford 13
1936	Stanford 7, Southern Methodist 0
1937	Pittsburgh 21, Washington 0
1938	California 13, Alabama 0
1939	Southern California 7, Duke 3
1940	Southern California 14, Tennessee 0
1941	Stanford 21, Nebraska 13
1942	Oregon State 20, Duke 16*
1943	Georgia 9, U. C. L. A. 0
1944	Southern California 29, Washington 0
1945	Southern California 25, Tennessee 0
1946	Alabama 34, Southern California 14
1947	Illinois 45, U. C. L. A. 14
1948	Michigan 49, Southern California 0
1949	Northwestern 20, California 14
1950	Ohio State 17, California 14
1951	Michigan 14, California 6
1952	Illinois 40, Stanford 7
1953	Southern California 7, Wisconsin 0
1954	Michigan State 28, U. C. L. A. 20
1955	Ohio State 20, Southern California 7
1956	Michigan State 17, U. C. L. A. 14
1957	Iowa 35, Oregon State 19
1958	Ohio State 10, Oregon 7
1959	Iowa 38, California 12

* Played at Durham, N. C.

Cotton Bowl (Dallas, Tex.)

1937	Texas Christian 16, Marquette 6
1938	Rice 28, Colorado 14
1939	St. Mary's (Calif.) 20, Texas Tech 13
1940	Clemson 6, Boston College 3
1941	Texas A & M 13, Fordham 12
1942	Alabama 29, Texas A & M 21
1943	Texas 14, Georgia Tech 7
1944	Randolph Field 7, Texas 7
1945	Oklahoma A & M 34, Texas Christian 0
1946	Texas 40, Missouri 27
1947	Louisiana State 0, Arkansas 0
1948	Southern Methodist 13, Penn State 13
1949	Southern Methodist 21, Oregon 13
1950	Rice 27, North Carolina 13
1951	Tennessee 20, Texas 14
1952	Kentucky 20, Texas Christian 7
1953	Texas 16, Tennessee 0
1954	Rice 28, Alabama 6
1955	Georgia Tech 14, Arkansas 6
1956	Mississippi 14, Texas Christian 13
1957	Texas Christian 28, Syracuse 27
1958	Navy 20, Rice 7
1959	Air Force 0, Texas Christian 0

Sugar Bowl (New Orleans, La.)

1935	Tulane 20, Temple 14
1936	Texas Christian 3, Louisiana State 2
1937	Santa Clara 21, Louisiana State 14
1938	Santa Clara 6, Louisiana State 0
1939	Texas Christian 15, Carnegie Tech 7
1940	Texas A & M 14, Tulane 13
1941	Boston College 19, Tennessee 13
1942	Fordham 2, Missouri 0
1943	Tennessee 14, Tulsa 7
1944	Georgia Tech 20, Tulsa 18
1945	Duke 29, Alabama 26
1946	Oklahoma A & M 33, St. Mary's (Calif.) 13
1947	Georgia 20, North Carolina 10
1948	Texas 27, Alabama 7
1949	Oklahoma 14, North Carolina 6
1950	Oklahoma 35, Louisiana State 0
1951	Kentucky 13, Oklahoma 7
1952	Maryland 28, Tennessee 13
1953	Georgia Tech 24, Mississippi 7
1954	Georgia Tech 42, West Virginia 19
1955	Navy 21, Mississippi 0
1956	Georgia Tech 7, Pittsburgh 0
1957	Baylor 13, Tennessee 7
1958	Mississippi 39, Texas 7
1959	Louisiana State 7, Clemson 0

Orange Bowl (Miami, Fla.)

1933	Miami 7, Manhattan 0
1934	Duquesne 33, Miami 7
1935	Bucknell 26, Miami 0
1936	Catholic University 20, Mississippi 19
1937	Duquesne 13, Mississippi State 12
1938	Alabama Poly. 6, Michigan State 0
1939	Tennessee 17, Oklahoma 0
1940	Georgia Tech 21, Missouri 7
1941	Mississippi State 14, Georgetown 7
1942	Georgia 40, Texas Christian 26
1943	Alabama 37, Boston College 21
1944	Louisiana State 19, Texas A & M 14
1945	Tulsa 26, Georgia Tech 12
1946	Miami 13, Holy Cross 6
1947	Rice 8, Tennessee 0
1948	Georgia Tech 20, Kansas 14
1949	Texas 41, Georgia 28
1950	Santa Clara 21, Kentucky 13
1951	Clemson 15, Miami (Fla.) 14
1952	Georgia Tech 17, Baylor 14
1953	Alabama 61, Syracuse 6
1954	Oklahoma 7, Maryland 0
1955	Duke 36, Nebraska 7
1956	Oklahoma 20, Maryland 6
1957	Colorado 27, Clemson 21
1958	Oklahoma 48, Duke 21
1959	Oklahoma 21, Syracuse 6

Colts Overwhelm College All-Stars

The Baltimore Colts, 1958 National Football League champions, defeated the collegians, 29 to 0, in the 26th annual College All-Star game at Chicago's Soldier Field in 1959. It was the 16th victory for the pros in the series; the collegians have won eight, while two games ended in ties. A crowd of 70,000 watched the contest. Bob Ptacek, Michigan graduate, won the most valuable college player award. Notre Dame's Nick Pietrosante was the runnerup.

LAWN TENNIS

LAWN TENNIS is a comparatively modern modification of the ancient game of court tennis. Major Walter Clopton Wingfield thought that something like court tennis might be played outdoors on lawns and in December, 1873, at Nantclwyd, Wales, he introduced his new game under the name of *Sphairistike* at a lawn party. The game was a success and spread rapidly, but the name was a total failure and almost immediately disappeared when all the players and spectators began to refer to the new game as "lawn tennis." In the early part of 1874 a young lady named Mary Ewing Outerbridge returned from Bermuda to New York, bringing with her the implements and necessary equipment of the new game that she had obtained from a British Army supply store in Bermuda. Miss Outerbridge and friends played the first game of lawn tennis in the United States on the grounds of the Staten Island

Cricket and Baseball Club in the spring of 1874.

For a few years the new game went along in haphazard fashion under varying rules. Tennis balls were of no standard size or texture. The nets were set at different heights up to 5 feet on the side and 4 feet in the middle. Some courts were marked out in hour-glass shape, narrow in the middle and wide at both ends. But about 1880 standard measurements for the court and standard equipment within definite limits became the rule. In 1881 the United States Lawn Tennis Association was formed and conducted the first national championship at Newport, R. I. The international matches for the Davis Cup began with a series between the British and United States players on the courts of the Longwood Cricket Club, Chestnut Hill, Mass., in 1900, with the home players winning.

DAVIS CUP CHALLENGE ROUND RESULTS

MEN

No matches in 1901, 1910, 1915-18, and 1940-45.

Year	Result	Where played	Year	Result	Where played
1900	United States 5, British Isles 0	Chestnut Hill	1929	France 3, United States 2	Paris
1902	United States 3, British Isles 2	Brooklyn	1930	France 4, United States 1	Paris
1903	British Isles 4, United States 1	Chestnut Hill	1931	France 3, Great Britain 2	Paris
1904	British Isles 5, Belgium 0	Wimbledon	1932	France 3, United States 2	Paris
1905	British Isles 5, United States 0	Wimbledon	1933	Great Britain 3, France 2	Paris
1906	British Isles 5, United States 0	Wimbledon	1934	Great Britain 4, United States 1	Wimbledon
1907	Australasia 3, British Isles 2	Wimbledon	1935	Great Britain 5, United States 0	Wimbledon
1908	Australasia 3, United States 2	Melbourne	1936	Great Britain 3, Australia 2	Wimbledon
1909	Australasia 5, United States 0	Sydney	1937	United States 4, Great Britain 1	Wimbledon
1911	Australasia 5, United States 0	Christchurch	1938	United States 3, Australia 2	Philadelphia
1912	British Isles 3, Australasia 2	Melbourne	1939	Australia 3, United States 2	Haverford
1913	United States 3, British Isles 2	Wimbledon	1946	United States 5, Australia 0	Melbourne
1914	Australasia 3, United States 2	Forest Hills	1947	United States 4, Australia 1	Forest Hills
1919	Australasia 4, British Isles 1	Sydney	1948	United States 5, Australia 0	Forest Hills
1920	United States 5, Australasia 0	Auckland	1949	United States 4, Australia 1	Forest Hills
1921	United States 5, Japan 0	Forest Hills	1950	Australia 4, United States 1	Forest Hills
1922	United States 4, Australasia 1	Forest Hills	1951	Australia 3, United States 2	Sydney
1923	United States 4, Australasia 1	Forest Hills	1952	Australia 4, United States 1	Adelaide
1924	United States 5, Australasia 0	Philadelphia	1953	Australia 3, United States 2	Melbourne
1925	United States 5, France 0	Philadelphia	1954	United States 3, Australia 2	Sydney
1926	United States 4, France 1	Philadelphia	1955	Australia 5, United States 0	Forest Hills
1927	France 3, United States 2	Philadelphia	1956	Australia 5, United States 0	Adelaide
1928	France 4, United States 1	Paris	1957	Australia 3, United States 2	Melbourne
			1958	United States 3, Australia 2	Brisbane

WIGHTMAN CUP RECORD

WOMEN

Year	Result	Where played	Year	Result	Where played
1923	United States 7, England 0	Forest Hills	1937	United States 6, England 1	Forest Hills
1924	England 6, United States 1	Wimbledon	1938	United States 5, England 2	Wimbledon
1925	England 4, United States 3	Forest Hills	1939	United States 5, England 2	Forest Hills
1926	United States 4, England 3	Wimbledon	1946	United States 7, England 0	Wimbledon
1927	United States 5, England 2	Forest Hills	1947	United States 7, England 0	Forest Hills
1928	England 4, United States 3	Wimbledon	1948	United States 6, England 1	Wimbledon
1929	United States 4, England 3	Forest Hills	1949	United States 7, England 0	Haverford
1930	England 4, United States 3	Wimbledon	1950	United States 7, England 0	Wimbledon
1931	United States 5, England 2	Forest Hills	1951	United States 6, England 1	Longwood
1932	United States 4, England 3	Wimbledon	1952	United States 7, England 0	Wimbledon
1933	United States 4, England 3	Forest Hills	1953	United States 7, England 0	Rye, N. Y.
1934	United States 5, England 2	Wimbledon	1954	United States 6, England 0	Wimbledon
1935	United States 4, England 3	Forest Hills	1955	United States 6, England 1	Rye, N. Y.
1936	United States 4, England 3	Wimbledon	1956	United States 5, England 2	Wimbledon
			1957	United States 6, England 1	Sewickley, Pa.
			1958	England 4, United States 3	Wimbledon

UNITED STATES CHAMPIONS

Men's Singles

1881-87—Richard D. Sears	1905—Beals C. Wright	1929—William T. Tilden II	1943—Joseph Hunt
1888-89—Henry W. Slocum, Jr.	1906—William J. Clothier	1930—John H. Doeg	1944-45—Frank Parker
1890-92—Oliver S. Campbell	1907-11—William A. Larned	1931-32—H. E. Vines, Jr.	1946-47—Jack Kramer
1893-94—Robert D. Wrenn	1912-13—M. E. McLoughlin*	1933-34—Fred J. Perry	1948-49—Richard Gonzales
1895—Fred H. Hovey	1914—R. N. Williams II	1935—Wimmer L. Allison	1950—Arthur Larsen
1896-97—Robert D. Wrenn	1915—William Johnston	1936—Fred J. Perry	1951-52—Frank Sedgman
1898-1900—Malcolm D. Whitman	1916—R. N. Williams II	1937-38—J. Donald Budge	1953—Tony Trabert
1901-02—William A. Larned	1917-18—R. Lindley Murray†	1939—Robert L. Riggs	1954—E. Victor Seixas, Jr.
1903—Hugh L. Doherty	1919—William Johnston	1940—Donald McNeill	1955—Tony Trabert
1904—Holcombe Ward	1920-25—William T. Tilden II	1941—Robert L. Riggs	1956—Ken Rosewall
	1926-27—Jean Rene Lacoste	1942—Frederick R. Schroeder, Jr.	1957—Mal Anderson
	1928—Henri Cochet		1958—Ashley Cooper

* Challenge round abandoned in 1912. † Patriotic tournament in 1917.

Men's Doubles

1881—C. M. Clark-F. W. Taylor	1929-30—G. M. Lott, Jr.-J. H. Doeg
1882-84—R. D. Sears-James Dwight	1931—W. L. Allison-John Van Ryn
1885—R. D. Sears-J. S. Clark	1932—E. H. Vines, Jr.-Keith Gledhill
1886-87—R. D. Sears-James Dwight	1933-34—G. M. Lott, Jr.-L. R. Stoeft
1888—O. S. Campbell-V. G. Hall	1935—W. L. Allison-John Van Ryn
1889—H. W. Slocum, Jr.-H. A. Taylor	1936—J. D. Budge-C. G. Mako
1890—V. G. Hall-Clarence Hobart	1937—Baron G. von Cramm-Henner Henkel
1891-92—O. S. Campbell-R. P. Huntington, Jr.	1938—J. D. Budge-C. G. Mako
1893-94—Clarence Hobart-F. H. Hovey	1939—A. K. Quist-J. E. Bromwich
1895—M. G. Chace-R. D. Wrenn	1940-41—Jack Kramer-F. R. Schroeder, Jr.
1896—C. B. Neel-S. R. Neel	1942—Gardnar Mulloy-W. F. Talbert
1897-98—L. E. Ware-G. P. Sheldon, Jr.	1943—Jack Kramer-F. A. Parker
1899-1901—Holcombe Ward-D. F. Davis	1944—Don McNeill-Robert Falkenburg
1902-03—R. F. Doherty-H. L. Doherty	1945—Gardnar Mulloy-W. F. Talbert
1904-1906—Holcombe Ward-B. C. Wright	1946—Gardnar Mulloy-W. F. Talbert
1907-10—H. H. Hackett-F. B. Alexander	1947—Jack Kramer-F. R. Schroeder, Jr.
1911—R. D. Little-G. F. Touchard	1948—Gardnar Mulloy-W. F. Talbert
1912-14—M. E. McLoughlin-T. C. Bundy	1949—John Bromwich-William Sidwell
1915-16—William Johnston-C. J. Griffin	1950—John Bromwich-Frank Sedgman
1917—F. B. Alexander-H. A. Throckmorton*	1951—Frank Sedgman-Kenneth McGregor
1918—W. T. Tilden II-Vincent Richards†	1952—E. Victor Seixas, Jr.-Mervyn Rose
1919—N. E. Brookes-G. L. Patterson	1953—Mervyn Rose-Rex Hartwig
1920—William Johnston-C. J. Griffin	1954—E. Victor Seixas, Jr.-Tony Trabert
1921-22—W. T. Tilden II-Vincent Richards	1955—Kosei Kamo-Atsushi Miyagi
1923—W. T. Tilden II-B. I. C. Norton	1956—Lewis Hoad-Ken Rosewall
1924—H. O. Kinsey-R. G. Kinsey	1957—Ashley Cooper-Neale Fraser
1925-26—Vincent Richards-R. N. Williams II	1958—Ham Richardson-Alex Olmedo
1927—W. T. Tilden II-F. T. Hunter	
1928—G. M. Lott, Jr.-V. F. Hennessey	

* Patriotic tournament in 1917.
† Challenge round abandoned in 1918.

Women's Singles

1887—Ellen F. Hansell	1900—Myrtle McAteer	1912-14—Mary K. Browne	1936—Alice Marble
1888-89—Bertha L. Townsend	1901—Elisabeth H. Moore	1915-18—Molla Bjurstedt††	1937—Anita Lizana
1890—Ellen C. Roosevelt	1902—Marion Jones	1919—Mrs. G. W. Wightman	1938-40—Alice Marble
1891-92—Mabel E. Cahill	1903—Elisabeth H. Moore	1920-22—Mrs. Molla B. Mallory	1941—Mrs. Sarah P. Cooke
1893—Aline M. Terry	1904—May G. Sutton		1946—Pauline M. Betz
1894—Helen R. Helwig	1905—Elisabeth H. Moore	1923-25—Helen N. Wills	1947—A. Louise Brough
1895—Juliette P. Atkinson	1906—Helen Homans	1926—Mrs. Molla B. Mallory	1948-50—Mrs. M. O. du Pont
1896—Elisabeth H. Moore	1907—Evelyn Sears	1927-29—Helen N. Wills	1951-53—Maureen Connolly
1897-98—Juliette P. Atkinson	1908—Mrs. Maud Bargar-Wallach	1930—Betty Nuthall	1954-55—Doris Hart
1899—Marion Jones	1909-11—Hazel V. Hotchkiss	1931—Mrs. Helen W. Moody	1956—Shirley Fry
		1932-35—Helen Jacobs	1957-58—Althea Gibson

* Louise Hammond won patriotic tournament in 1917. † Challenge round abandoned in 1918.

Women's Doubles

1890—Ellen C. Roosevelt-Grace W. Roosevelt	1901—J. P. Atkinson-Myrtle McAteer
1891—Mabel E. Cahill-Mrs. W. F. Morgan	1902—J. P. Atkinson-Marion Jones
1892—Mabel E. Cahill-A. M. McKinley	1903—E. H. Moore-Carrie B. Neely
1893—Aline M. Terry-Hattie Butler	1904—May G. Sutton-Miriam Hall
1894-95—Helen R. Helwig-J. P. Atkinson	1905—Helen Homans-Carrie B. Neely
1896—E. H. Moore-J. P. Atkinson	1906—Mrs. L. S. Coe-Mrs. D. S. Platt
1897-98—J. P. Atkinson-Kathleen Atkinson	1907—Marie Weimer-Carrie B. Neely
1899—Jane W. Craven-Myrtle McAteer	1908—Evelyn Sears-Margaret Curtis
1900—Edith Parker-Hallie Champlin	1909-10—Hazel V. Hotchkiss-Edith E. Rotch

1911—Hazel V. Hotchkiss-Eleonora Sears
 1912—Dorothy Green-Mary K. Browne
 1913-14—Mary K. Browne-Mrs. R. H. Williams
 1915—Mrs. G. W. Wightman-Eleonora Sears
 1916-17—Molla Bjurstedt-Eleonora Sears
 1918-20—Marion Zinderstein-Eleanor Goss
 1921—Mary K. Browne-Mrs. R. H. Williams
 1922—Mrs. J. B. Jessup-Helen N. Wills
 1923—Kathleen McKane-Mrs. B. C. Covell
 1924—Mrs. G. W. Wightman-Helen N. Wills
 1925—Mary K. Browne-Helen N. Wills
 1926—Elizabeth Ryan-Eleanor Goss
 1927—Mrs. L. A. Godfree-Ermytrude Harvey
 1928—Mrs. G. W. Wightman-Helen N. Wills
 1929—Mrs. Phoebe Watson-Mrs. L. R. C. Michell

1930—Betty Nuthall-Sarah Palfrey
 1931—Betty Nuthall-Mrs. E. B. Wittingstall
 1932—Helen Jacobs-Sarah Palfrey
 1933—Betty Nuthall-Freda James
 1934—Helen Jacobs-Sarah Palfrey
 1935—Helen Jacobs-Mrs. S. P. Fabyan
 1936—Mrs. M. G. Van Ryn-Carolin Babcock
 1937-40—Mrs. S. P. Fabyan-Alice Marble
 1941—Mrs. S. P. Cooke-Margaret Osborne
 1942-47—A. Louise Brough-Margaret Osborne
 1948-50—A. Louise Brough-Mrs. Margaret O. du Pont
 1951-54—Doris Hart-Shirley Fry
 1955-57—A. Louise Brough-Mrs. Margaret O. du Pont
 1958—Darlene Hard-Jeanne Arth

BRITISH (WIMBLEDON) CHAMPIONS

Men's Singles

1877—S. W. Gore	1897-1900—R. F. Doherty	1925—R. Lacoste	1946—Yvon Petra
1878—P. F. Hadow	1901—A. W. Gore	1926—J. Borotra	1947—John A. Kramer
1879-80—J. T. Hartley	1902-06—H. L. Doherty	1927—H. Cochet	1948—R. Falkenburg
1881-86—W. Renshaw	1907—N. E. Brookes	1928—R. Lacoste	1949—F. R. Schroeder, Jr.
1887—H. F. Lawford	1908-09—A. W. Gore	1929—H. Cochet	1950—Budge Patty
1888—E. Renshaw	1910-13—A. F. Wilding	1930—W. T. Tilden II	1951—Richard Savitt
1889—W. Renshaw	1914—N. E. Brookes	1931—S. B. Wood	1952—Frank Sedgman
1890—W. J. Hamilton	1919—G. L. Patterson	1932—H. E. Vines, Jr.	1953—E. Victor Seixas, Jr.
1891-92—W. Baddeley	1920-21—W. T. Tilden II	1933—J. H. Crawford	1954—Jaroslav Drobny
1893-94—J. Pim	1922—G. L. Patterson	1934-36—F. J. Perry	1955—Tony Trabert
1895—W. Baddeley	1923—W. M. Johnston	1937-38—J. D. Budge	1956-57—Lewis Hoad
1896—H. S. Mahony	1924—J. Borotra	1939—R. L. Riggs	1958—Ashley Cooper

Men's Doubles

1879—L. R. Erskine-H. F. Lawford	1908—A. F. Wilding-M. J. G. Ritchie	1932-33—J. Borotra-J. Brugnon
1880-81—W. Renshaw-E. Renshaw	1909—A. W. Gore-H. R. Barrett	1934—G. M. Lott-L. R. Stoeven
1882—J. T. Hartley-R. T. Richardson	1910—A. F. Wilding-M. J. G. Ritchie	1935—J. H. Crawford-A. K. Quist
1883—C. W. Grinstead-C. E. Welldon	1911—M. Decugis-A. H. Gobert	1936—C. R. D. Tuckey-G. P. Hughes
1884-86—W. Renshaw-E. Renshaw	1912-13—H. R. Barrett-C. P. Dixon	1937-38—J. D. Budge-G. Gene Mako
1887—P. Bowes-Lyon-H. W. W. Wilberforce	1914—N. E. Brookes-A. F. Wilding	1939—R. L. Riggs-E. T. Cooke
1888-89—W. Renshaw-E. Renshaw	1919—R. V. Thomas-P. O'Hara Wood	1946—J. A. Kramer-Tom Brown
1890—J. L. Pim-F. O. Stoker	1920—R. N. Williams II-C. S. Garland	1947—J. A. Kramer-R. Falkenburg
1891—W. Baddeley-H. Baddeley	1921—R. Lycett-M. Woosnam	1948—J. Bromwich-F. Sedgman
1892—H. S. Barrow-E. W. Lewis	1922—R. Lycett-J. O. Anderson	1949—F. Parker-R. Gonzales
1893—J. L. Pim-F. O. Stoker	1923—R. Lycett-L. A. Godfree	1950—J. Bromwich-A. Quist
1894-96—W. Baddeley-H. Baddeley	1924—V. Richards-F. T. Hunter	1951-52—F. Sedgman-K. McGregor
1897-1901—R. F. Doherty-H. L. Doherty	1925—J. Borotra-R. Lacoste	1953—K. Rosewall-L. Hoad
1902—S. H. Smith-F. L. Riseley	1926—H. Cochet-J. Brugnon	1954—R. Hartwig-M. Rose
1903-05—R. F. Doherty-H. L. Doherty	1927—W. T. Tilden II-F. T. Hunter	1955—R. Hartwig-L. Hoad
1906—S. H. Smith-F. L. Riseley	1928—H. Cochet-J. Brugnon	1956—L. Hoad-K. Rosewall
1907—N. E. Brookes-A. F. Wilding	1929-30—W. Allison-J. Van Ryn	1957—G. Mulloy-B. Patty
	1931—G. M. Lott-J. Van Ryn	1958—Sven Davidson-Ulf Schmidt

Women's Singles

1884-85—M. Watson	1901—Mrs. Sterry	1919-23—Mlle. Lenglen	1937—D. E. Round
1886—Miss Bingley	1902—M. E. Robb	1924—K. McKane	1938—Mrs. F. S. Moody
1887-88—L. Dod	1903-04—D. K. Douglas	1925—Mlle. Lenglen	1939—Alice Marble
1889—Mrs. Hillyard	1905—M. Sutton	1926—Mrs. Godfree	1946—Pauline M. Betz
1890—L. Rice	1906—D. K. Douglas	1927-29—Helen Wills	1947—Margaret Osborne
1891-93—L. Dod	1907—M. Sutton	1930—Mrs. F. S. Moody	1948-50—A. Louise Brough
1894—Mrs. Hillyard	1908—Mrs. Sterry	1931—Frl. C. Aussen	1951—Doris Hart
1895-96—C. Cooper	1909—D. Boothby	1932-33—Mrs. F. S. Moody	1952-54—M. Connolly
1897—Mrs. Hillyard	1910-11—Mrs. L. Chambers	1934—D. E. Round	1955—A. Louise Brough
1898—C. Cooper	1912—Mrs. Larcombe	1935—Mrs. F. S. Moody	1956—Shirley Fry
1899-1900—Mrs. Hillyard	1913-14—Mrs. L. Chambers	1936—Helen Jacobs	1957-58—Althea Gibson

Women's Doubles

1913—Mrs. McNair-Miss Boothby	1930—E. Ryan-Mrs. F. S. Moody	1947—Doris Hart-Mrs. Pat Todd
1914—E. Ryan-A. M. Morton	1931—Mrs. Shepherd-Barron-Mrs. Mudd King	1948-50—A. L. Brough-Mrs. M. O. du Pont
1919-23—Mlle. Lenglen-E. Ryan	1932—Mlle. D. Metaxa-Mlle. J. Sigart	1951-53—Doris Hart-Shirley Fry
1924—Mrs. Wightman-Helen Wills	1933-34—E. Ryan-Mme. Mathieu	1954—A. L. Brough-Mrs. M. O. du Pont
1925—Mlle. Lenglen-E. Ryan	1935-36—K. E. Stammers-F. James	1955—Angela Mortimer-Ann Shilcock
1926—E. Ryan-M. K. Browne	1937—Mme. S. Mathieu-A. M. Yorka	1956—Althea Gibson-Angela Buxton
1927—E. Ryan-Helen Wills	1938-39—A. Marble-Mrs. S. P. Fabyan	1957—Althea Gibson-Darlene Hard
1928—Mrs. H. Watson-P. Saunders	1946—A. L. Brough-M. Osborne	1958—Althea Gibson-Maria Bueno
1929—Mrs. H. Watson-Mrs. Michell		

THE OLYMPIC GAMES

(W)—Site of Winter Games. (S)—Site of Summer Games.

1896—Athens	1924—Chamonix (W)	1936—Garmisch-Parten-	1956—Cortina d'Am-
1900—Paris	1924—Paris (S)	kirchen (W)	pezzo, Italy (W)
1904—St. Louis	1928—St. Moritz (W)	1936—Berlin (S)	1956—Melbourne (S)
1906—Athens	1928—Amsterdam (S)	1948—St. Moritz (W)	1960—Squaw Valley,
1908—London	1932—Lake Placid (W)	1948—London (S)	Calif. (W)
1912—Stockholm	1932—Los Angeles (S)	1952—Oslo (W)	1960—Rome (S)
1920—Antwerp		1952—Helsinki (S)	

THE first Olympic Games of which there is record occurred in 776 B.C. and consisted of one event, a great foot race of about 200 yards held on a plain by the River Alpheus (now the Ruphla) just outside the little town of Olympia in Greece. It was from that date that the Greeks began to keep their calendar by "Olympiads," the four-year spans between the celebrations of the famous games. There was a religious as well as an athletic significance to the ancient games and the shrines, temples and sacred fires within the Olympic enclosure were the scenes of worship all through the year whereas the Olympic Games, at the height of their popularity, never lasted more than five days and were held only once every four years.

The competition was entirely amateur at the start and the only prizes were laurel wreaths. Only free Greek citizens were allowed to compete and they had to undergo a strict training course that lasted ten months. But civic rivalry led to trickery and professionalism and the

games became degraded after some centuries. When Rome conquered Greece, the Roman emperors turned the Olympic Games from patriotic, religious and athletic festivals into carnivals and circuses. They dragged on malodorously until they were finally halted by decree of Emperor Theodosius I of Rome in A.D. 394.

The modern Olympic Games, which started in Athens in 1896, are the result of the devotion of a French educator, Baron Pierre de Coubertin, to the idea that, since boys and athletics have gone together down the ages, education and athletics might well go hand-in-hand toward a better international understanding. He planned a revival of the ancient Olympic Games on a world-wide basis and succeeded in getting nine nations to send athletes to the first of the modern games in 1896. Since then more than 35,000 athletes representing about 60 nations have competed in the games.

Interrupted for the second time by war, the modern Olympic Games were resumed at London in 1948.

OLYMPIC GAMES CHAMPIONS, 1896-1956

TRACK AND FIELD—MEN

60-Meter Run

1900	A. E. Kraenzlein, United States.....	7s.
1904	Archie Hahn, United States.....	7s.

100-Meter Run

1896	T. E. Burke, United States.....	12s.
1900	F. W. Jarvis, United States.....	10.8s.
1904	Archie Hahn, United States.....	11s.
1906	Archie Hahn, United States.....	11.2s.
1908	R. E. Walker, South Africa.....	10.8s.
1912	R. C. Craig, United States.....	10.8s.
1920	C. W. Paddock, United States.....	10.8s.
1924	H. M. Abrahams, Great Britain.....	10.6s.
1928	Percy Williams, Canada.....	10.8s.
1932	Eddie Tolan, United States.....	10.3s.
1936	Jesse Owens, United States.....	10.3s.*
1948	Harrison Dillard, United States.....	10.3s.
1952	Lindy Remigino, United States.....	10.4s.
1956	Bobby Morrow, United States.....	10.5s.

* Wind assisted.

200-Meter Run

1900	J. W. B. Tewksbury, United States.....	22.2s.
1904	Archie Hahn, United States.....	21.6s.
1908	Robert Kerr, Canada.....	22.4s.

1912	R. C. Craig, United States.....	21.7s.
1920	Allan Woodring, United States.....	22s.
1924	J. V. Scholz, United States.....	21.6s.
1928	Percy Williams, Canada.....	21.8s.
1932	Eddie Tolan, United States.....	21.2s.
1936	Jesse Owens, United States.....	20.7s.
1948	Melvin E. Patton, United States.....	21.1s.
1952	Andrew Stanfield, United States.....	20.7s.
1956	Bobby Morrow, United States.....	20.6s.

400-Meter Run

1896	T. E. Burke, United States.....	54.2.
1900	M. W. Long, United States.....	49.4.
1904	H. L. Hillman, United States.....	49.2.
1906	Paul Pilgrim, United States.....	53.2.
1908	W. Halswelle, Great Britain (walkover).....	50s.
1912	C. D. Reidpath, United States.....	48.2s.
1920	B. G. D. Rudd, South Africa.....	49.6s.
1924	E. H. Liddell, Great Britain.....	47.6s.
1928	Ray Barbuti, United States.....	47.8s.
1932	William Carr, United States.....	46.2s.
1936	Archie Williams, United States.....	46.5s.
1948	Arthur Wint, Jamaica, B.W.I.....	46.2s.
1952	George Rhoden, Jamaica, B. W. I.....	45.9s.
1956	Charles Jenkins, United States.....	46.7s.

800-Meter Run

1896	E. H. Flack, Great Britain.....	2m.11s.
1900	A. E. Tysoe, Great Britain.....	2m.14s.
1904	J. D. Lightbody, United States.....	1m.56s.
1906	Paul Pilgrim, United States.....	2m.12s.
1908	M. W. Sheppard, United States.....	1m.52.8s.
1912	J. E. Meredith, United States.....	1m.51.9s.
1920	A. G. Hill, Great Britain.....	1m.53.4s.
1924	D. G. A. Lowe, Great Britain.....	1m.52.4s.
1928	D. G. A. Lowe, Great Britain.....	1m.51.8s.
1932	Thomas Hampson, Great Britain.....	1m.49.8s.
1936	John Woodruff, United States.....	1m.52.9s.
1948	Malvin Whitfield, United States.....	1m.49.2s.
1952	Malvin Whitfield, United States.....	1m.49.2s.
1956	Tom Courtney, United States.....	1m.47.7s.

1,500-Meter Run

1896	E. H. Flack, Great Britain.....	4m.33.2s.
1900	Charles Bennett, Great Britain.....	4m.6s.
1904	J. D. Lightbody, United States.....	4m.5.4s.
1906	J. D. Lightbody, United States.....	4m.12s.
1908	M. W. Sheppard, United States.....	4m.3.4s.
1912	A. N. S. Jackson, Great Britain.....	3m.56.8s.
1920	A. G. Hill, Great Britain.....	4m.1.8s.
1924	Paavo Nurmi, Finland.....	3m.53.6s.
1928	H. E. Larva, Finland.....	3m.53.2s.
1932	Luigi Beccali, Italy.....	3m.51.2s.
1936	J. E. Lovelock, New Zealand.....	3m.47.8s.
1948	Henri Eriksson, Sweden.....	3m.49.8s.
1952	Joseph Barthel, Luxembourg.....	3m.45.2s.
1956	Ron Delany, Ireland.....	3m.41.2s.

5,000-Meter Run

1912	Hannes Kolehmainen, Finland.....	14m.36.6s.
1920	Joseph Guillemot, France.....	14m.55.6s.
1924	Paavo Nurmi, Finland.....	14m.31.2s.
1928	Willie Ritola, Finland.....	14m.38s.
1932	Lauri Lehtinen, Finland.....	14m.30s.
1936	Gunnar Hockert, Finland.....	14m.22.2s.
1948	Gaston Reiff, Belgium.....	14m.17.6s.
1952	Emil Zatopek, Czechoslovakia.....	14m.6.6s.
1956	Vladimir Kuts, U.S.S.R.....	13m.39.6s.

5-Mile Run

1906	H. Hawtrey, Great Britain.....	26m.26.2s.
1908	E. R. Voigt, Great Britain.....	25m.11.2s.

10,000-Meter Run

1912	Hannes Kolehmainen, Finland.....	31m.20.8s.
1920	Paavo Nurmi, Finland.....	31m.45.8s.
1924	Willie Ritola, Finland.....	30m.23.2s.
1928	Paavo Nurmi, Finland.....	30m.18.8s.
1932	Janusz Kusociński, Poland.....	30m.11.4s.
1936	Ilmari Salminen, Finland.....	30m.15.4s.
1948	Emil Zatopek, Czechoslovakia.....	29m.59.6s.
1952	Emil Zatopek, Czechoslovakia.....	29m.17s.
1956	Vladimir Kuts, U.S.S.R.....	28m.45.6s.

Marathon

1896	Spiridon Loues, Greece.....	2h.55m.20s.
1900	Michel Teato, France.....	2h.59m.
1904	T. J. Hicks, United States.....	3h.28m.53s.
1906	W. J. Sherring, Canada.....	2h.51m.23.6s.
1908	John J. Hayes, United States.....	2h.55m.18.4s.
1912	K. K. McArthur, South Africa.....	2h.36m.54.8s.
1920	Hannes Kolehmainen, Finland.....	2h.32m.35.8s.
1924	A. O. Stenroos, Finland.....	2h.41m.22.6s.
1928	A. B. El Ouafi, France.....	2h.32m.57s.
1932	Juan Zabala, Argentina.....	2h.31m.36s.
1936	Kitei Son, Japan.....	2h.29m.19.2s.
1948	Delfo Cabrera, Argentina.....	2h.34m.51.6s.
1952	Emil Zatopek, Czechoslovakia.....	2h.23m.3.2s.
1956	Alain Mimoun, France.....	2h.25m.

110-Meter Hurdles

1896	Thomas Curtis, United States.....	17.6s.
1900	A. E. Kraenzlein, United States.....	15.4s.
1904	F. W. Schule, United States.....	16s.
1906	R. G. Leavitt, United States.....	16.2s.
1908	Forrest Smithson, United States.....	15s.
1912	F. W. Kelly, United States.....	15.1s.
1920	E. J. Thomson, Canada.....	14.8s.
1924	D. C. Kinsey, United States.....	15s.
1928	Sydney Atkinson, South Africa.....	14.8s.
1932	George Saling, United States.....	14.6s.
1936	Forrest Towns, United States.....	14.2s.
1948	William Porter, United States.....	13.9s.
1952	Harrison Dillard, United States.....	13.7s.
1956	Lee Calhoun, United States.....	13.5s.

200-Meter Hurdles

1900	A. E. Kraenzlein, United States.....	25.4s.
1904	H. L. Hillman, United States.....	24.6s.

400-Meter Hurdles

1900	J. W. B. Tewksbury, United States.....	57.6s.
1904	H. L. Hillman, United States.....	53s.
1908	C. J. Bacon, United States.....	55s.
1920	F. F. Loomis, United States.....	54s.
1924	F. M. Taylor, United States.....	52.6s.
1928	Lord David Burghley, Great Britain.....	53.4s.
1932	Robert Tisdall, Ireland.....	51.8s.*
1936	Glenn Hardin, United States.....	52.4s.
1948	Roy Cochran, United States.....	51.1s.
1952	Charles Moore, United States.....	50.8s.
1956	Glenn Davis, United States.....	50.1s.

* Record not allowed.

2,500-Meter Steeplechase

1900	G. W. Orton, United States.....	7m.34s.
1904	J. D. Lightbody, United States.....	7m.39.6s.

3,000-Meter Steeplechase

1920	Percy Hodge, Great Britain.....	10m.2.4s.
1924	Willie Ritola, Finland.....	9m.33.6s.
1928	T. A. Loukola, Finland.....	9m.21.8s.
1932	Volmari Iso-Hollo, Finland.....	10m.33.4s.*
1936	Volmari Iso-Hollo, Finland.....	9m.3.8s.
1948	Thure Sjostrand, Sweden.....	9m.4.6s.
1952	Horace Ashenfelter, United States.....	8m.45.4s.
1956	Chris Brasher, Great Britain.....	8m.41.2s.

* About 3,450 meters—extra lap by error.

3,200-Meter Steeplechase

1908	A. Russell, Great Britain.....	10m.47.8s.
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4,000-Meter Steeplechase

1900	John Rimmer, Great Britain.....	12m.58.4s.
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3,000-Meter Team

1912	United States.....	9 pts.
1920	United States.....	10 pts.
1924	Finland.....	8 pts.

3-Mile Team

1908	Great Britain.....	6 pts.
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8,000-Meter Cross-Country

1912	Hannes Kolehmainen, Finland.....	45m.11.6s.
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8,000-Meter Cross-Country Team

1912	Sweden.....
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10,000-Meter Cross-Country

1920	Paavo Nurmi, Finland.....	27m.15s.
1924	Paavo Nurmi, Finland.....	32m.54.8s.

10,000-Meter Cross-Country Team

1912	Sweden.....	10 pts.
1920	Finland.....	10 pts.
1924	Finland.....	11 pts.

1,500-Meter Walk

1906	George V. Bonhag, United States.....	7m.12.6s.
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3,000-Meter Walk

1920	Ugo Frigerio, Italy.....	13m.14.2s.
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3,500-Meter Walk

1908	G. E. Larner, Great Britain.....	4m.55s.
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10,000-Meter Walk

1912	G. H. Goulding, Canada.....	46m.28.4s
1920	Ugo Frigerio, Italy.....	48m.6.2s.
1924	Ugo Frigerio, Italy.....	47m.49s.
1948	John Mikaelsson, Sweden.....	45m.13.2s.
1952	John Mikaelsson, Sweden.....	45m.2.8s.

10-Mile Walk

1908	G. E. Larner, Great Britain.....	1h.15m.57.4s.
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20,000-Meter Walk

1956	Leonid Spirin, U.S.S.R.....	1h.31m.27s.
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50,000-Meter Walk

1932	Thomas W. Green, Great Britain.....	4h.50m.10s.
1936	Harold Whitlock, Great Britain.....	4h.30m.41.4s.
1948	John Ljunggren, Sweden.....	4h.41m.52s.
1952	Giuseppe Bordini, Italy.....	4h.28m.7.8s.
1956	Norman Read, New Zealand.....	4h.30m.42.8s.

400-Meter Relay

1912	Great Britain.....	42.4s.
1920	United States.....	42.2s.
1924	United States.....	41s.
1928	United States.....	41s.
1932	United States.....	40s.
1936	United States.....	39.8s.
1948	United States.....	40.6s.
1952	United States.....	40.1s.
1956	United States.....	39.5s.

1,600-Meter Relay

1908	United States.....	3m.27.2s.
1912	United States.....	3m.16.6s.
1920	Great Britain.....	3m.22.2s.
1924	United States.....	3m.16s.
1928	United States.....	3m.14.2s.
1932	United States.....	3m.8.2s.
1936	Great Britain.....	3m.9s.
1948	United States.....	3m.10.4s.
1952	Jamaica, B. W. I.....	3m.3.9s.
1956	United States.....	3m.4.8s.

Pole Vault

1896	W. W. Hoyt, United States.....	10 ft. 9½ in.
1900	I. K. Baxter, United States.....	10 ft. 9.9 in.
1904	C. E. Dvorak, United States.....	11 ft. 6 in.
1906	Gouder, France.....	11 ft. 6 in.
1908	A. C. Gilbert, United States, and Edward Cook, United States (tie)....	12 ft. 2 in.
1912	H. J. Babcock, United States.....	12 ft. 11½ in.
1920	F. K. Foss, United States.....	13 ft. 5 in.
1924	L. S. Barnes, United States.....	12 ft. 11½ in.
1928	Sabin W. Carr, United States.....	13 ft. 9½ in.
1932	William Miller, United States.....	14 ft. 1½ in.
1936	Earle Meadows, United States.....	14 ft. 3¼ in.
1948	Guinn Smith, United States.....	14 ft. 1¼ in.
1952	Robert Richards, United States.....	14 ft. 11.14 in.
1956	Robert Richards, United States.....	14 ft. 11½ in.

Standing High Jump

1900	R. C. Ewry, United States.....	5 ft. 5 in.
1904	R. C. Ewry, United States.....	4 ft. 11 in.
1906	R. C. Ewry, United States.....	5 ft. 1½ in.

1908	R. C. Ewry, United States.....	5 ft. 2 in.
1912	Platt Adams, United States.....	5 ft. 4½ in.

Running High Jump

1896	E. H. Clark, United States.....	5 ft. 11¼ in.
1900	I. K. Baxter, United States.....	6 ft. 2½ in.
1904	S. S. Jones, United States.....	5 ft. 11 in.
1906	Con Leahy, Ireland.....	5 ft. 9½ in.
1908	H. F. Porter, United States.....	6 ft. 3 in.
1912	A. W. Richards, United States.....	6 ft. 4 in.
1920	R. W. Landon, United States.....	6 ft. 4 ¼ in.
1924	H. M. Osborn, United States.....	6 ft. 5¼ in.
1928	Robert W. King, United States.....	6 ft. 4½ in.
1932	Duncan McNaughton, Canada.....	6 ft. 5½ in.
1936	Cornelius Johnson, United States.....	6 ft. 7¼ in.
1948	John Winter, Australia.....	6 ft. 6 in.
1952	Walter Davis, United States.....	6 ft. 8.32 in.
1956	Charles Dumas, United States.....	6 ft. 11¼ in.

Standing Broad Jump

1900	R. C. Ewry, United States.....	10 ft. 6½ in.
1904	R. C. Ewry, United States.....	11 ft. 4½ in.
1906	R. C. Ewry, United States.....	10 ft. 10 in.
1908	R. C. Ewry, United States.....	10 ft. 11¼ in.
1912	Constantin Tscilitiras, Greece.....	11 ft. ¼ in.

Running Broad Jump

1896	E. H. Clark, United States.....	20 ft. 9¼ in.
1900	A. E. Kraenzlein, United States.....	23 ft. 6½ in.
1904	Myer Prinstein, United States.....	24 ft. 1 in.
1906	Myer Prinstein, United States.....	23 ft. 7½ in.
1908	Frank Irons, United States.....	24 ft. 6½ in.
1912	A. L. Gutterson, United States.....	24 ft. 11¼ in.
1920	Wm. Petterson, Sweden.....	23 ft. 5½ in.
1924	DeHart Hubbard, United States.....	24 ft. 5½ in.
1928	Edward B. Hamm, United States.....	25 ft. 4¾ in.
1932	Edward Gordon, United States.....	25 ft. ¾ in.
1936	Jesse Owens, United States.....	26 ft. 5¼ in.
1948	Willie Steele, United States.....	25 ft. 8 in.
1952	Jerome Biffle, United States.....	24 ft. 10.03 in.
1956	Gregory Bell, United States.....	25 ft. 8¾ in.

Standing Hop, Step and Jump

1900	R. C. Ewry, United States.....	34 ft. 8½ in.
1904	R. C. Ewry, United States.....	34 ft. 7¼ in.

Running Hop, Step and Jump

1896	J. B. Connolly, United States.....	45 ft.
1900	Myer Prinstein, United States.....	47 ft. 4¼ in.
1904	Myer Prinstein, United States.....	47 ft.
1906	P. O'Connor, Ireland.....	46 ft. 2 in.
1908	T. J. Ahearne, Great Britain.....	48 ft. 11¼ in.
1912	Gustaf Lindblom, Sweden.....	48 ft. 5½ in.
1920	Vilho Tuulos, Finland.....	47 ft. 6½ in.
1924	A. W. Winter, Australia.....	50 ft. 11½ in.
1928	Mikio Oda, Japan.....	49 ft. 10¾ in.
1932	Chushei Nambu, Japan.....	51 ft. 7 in.
1936	Naoto Tajima, Japan.....	52 ft. 5½ in.
1948	Arne Ahman, Sweden.....	50 ft. 6¼ in.
1952	Adhemar da Silva, Brazil.....	53 ft. 2.59 in.
1956	Adhemar da Silva, Brazil.....	53 ft. 7½ in.

16-Lb. Shot Put

1896	Robert Garrett, United States.....	36 ft. 2 in.
1900	Richard Sheldon, United States.....	46 ft. 3½ in.
1904	Ralph Rose, United States.....	48 ft. 7 in.
1906	M. J. Sheridan, United States.....	40 ft. 4¾ in.
1908	Ralph Rose, United States.....	46 ft. 7½ in.
1912	P. J. McDonald, United States.....	50 ft. 4 in.
1920	Ville Porhola, Finland.....	48 ft. 7½ in.
1924	Clarence Houser, United States.....	49 ft. 2½ in.
1928	John Kuck, United States.....	52 ft. 1¾ in.
1932	Leo Saxton, United States.....	52 ft. 6¾ in.
1936	Hans Woellke, Germany.....	53 ft. 1¼ in.
1948	Wilbur Thompson, United States.....	56 ft. 2 in.
1952	Parry O'Brien, United States.....	57 ft. 1.43 in.
1956	Parry O'Brien, United States.....	60 ft. 11 in.

16-Lb. Shot Put (Both Hands)

1912	Ralph Rose, United States.....	90 ft. 5½ in.
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16-Lb. Hammer Throw

1900	J. J. Flanagan, United States.....	167 ft. 4 in.
1904	J. J. Flanagan, United States.....	168 ft. 1 in.
1908	J. J. Flanagan, United States.....	170 ft. 4¼ in.
1912	M. J. McGrath, United States.....	177 ft. 7 in.
1920	P. J. Ryan, United States.....	173 ft. 5½ in.
1924	F. D. Tootell, United States.....	174 ft. 10¼ in.
1928	Patrick O'Callaghan, Ireland.....	168 ft. 7½ in.
1932	Patrick O'Callaghan, Ireland.....	176 ft. 11½ in.
1936	Karl Hein, Germany.....	185 ft. 4 in.
1948	Imre Nemeth, Hungary.....	183 ft. 11½ in.
1952	Jozsef Csermak, Hungary.....	197 ft. 11.67 in.
1956	Harold Connolly, United States.....	207 ft. 2¾ in.

56-Lb. Weight Throw

1904	Etienne Desmarteau, Canada.....	34 ft. 4 in.
1920	P. J. McDonald, United States.....	36 ft. 11½ in.

Discus Throw

1896	Robert Garrett, United States.....	95 ft. 7½ in.
1900	Rudolf Bauer, Hungary.....	118 ft. 2.9 in.
1904	M. J. Sheridan, United States.....	128 ft. 10½ in.
1906	M. J. Sheridan, United States.....	136 ft. ½ in.
1908	M. J. Sheridan, United States.....	134 ft. 2 in.
1912	A. R. Taipale, Finland.....	148 ft. 3.9 in.
1920	Elmer Niklander, Finland.....	146 ft. 7 in.
1924	Clarence Houser, United States.....	151 ft. 5¼ in.
1928	Clarence Houser, United States.....	155 ft. 2½ in.
1932	John Anderson, United States.....	162 ft. 4½ in.
1936	Ken Carpenter, United States.....	165 ft. 7½ in.
1948	Adolfo Consolini, Italy.....	173 ft. 2 in.
1952	Simeon Iness, United States.....	180 ft. 6.85 in.
1956	Al Oerter, United States.....	184 ft. 10½ in.

Discus Throw—Greek Style

1906	Werner Jaervinen, Finland.....	115 ft. 4 in.
1908	M. J. Sheridan, United States.....	124 ft. 8 in.

Discus Throw (Right and Left Hand)

1912	A. R. Taipale, Finland.....	271 ft. 10½ in.
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Javelin Throw

1906	Eric Lemming, Sweden.....	175 ft. 6 in.
1908	Eric Lemming, Sweden.....	179 ft. 10½ in.
1912	Eric Lemming, Sweden.....	198 ft. 11¼ in.
1920	Jonni Myrja, Finland.....	215 ft. 9¼ in.
1924	Jonni Myrja, Finland.....	206 ft. 6¼ in.
1928	E. H. Lundquist, Sweden.....	218 ft. 6¼ in.
1932	Matti Jarvinen, Finland.....	238 ft. 7 in.
1936	Gerhard Stoeck, Germany.....	235 ft. 8½ in.
1948	Kaj Rautavaara, Finland.....	228 ft. 10½ in.
1952	Cy Young, United States.....	242 ft. 0.79 in.
1956	Egil Danielsen, Norway.....	281 ft. 2¼ in.

Javelin Throw—Free Style

1908	Eric Lemming, Sweden.....	178 ft. 7½ in.
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Javelin Throw (Both Hands)

1912	J. J. Saaristo, Finland.....	358 ft. 11½ in.
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Pentathlon

1906	H. Mellander, Sweden.....	24 pts.
1912	F. R. Bie, Norway.....	21 pts.
1920	E. R. Lehtonen, Finland.....	14 pts.
1924	E. R. Lehtonen, Finland.....	16 pts.

Decathlon

1912	Hugo Wieslander, Sweden.....	7,724.495 pts.
1920	Helge Lovland, Norway.....	6,804.35 pts.
1924	H. M. Osborn, United States.....	7,710.775 pts.
1928	Paavo Yrjoja, Finland.....	8,053.29 pts.

1932	James Bausch, United States.....	8,462.23 pts.
1936	Glenn Morris, United States.....	7,900 pts.
1948	Robert B. Mathias, United States.....	7,139 pts.
1952	Robert B. Mathias, United States.....	7,887 pts.
1956	Milton Campbell, United States.....	7,937 pts.

(Old point system used from 1912 to 1932; new point system used 1936, 1948; revised point system used 1952, 1956.)

TRACK AND FIELD—WOMEN**100-Meter Run**

1928	Elizabeth Robinson, United States.....	12.2s.
1932	Stanislawa Walasiewicz, Poland.....	11.9s.
1936	Helen Stephens, United States.....	11.5s.
1948	Fanny Blankers-Koen, Holland.....	11.9s.
1952	Marjorie Jackson, Australia.....	11.5s.
1956	Betty Cuthbert, Australia.....	11.5s.

200-Meter Run

1948	Fanny Blankers-Koen, Holland.....	24.4s.
1952	Marjorie Jackson, Australia.....	23.7s.
1956	Betty Cuthbert, Australia.....	23.4s.

800-Meter Run

1928	Lina Radke, Germany.....	2m.16.8s
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80-Meter Hurdles

1932	Mildred Didrikson, United States.....	11.7s.
1936	Trebisonda Valla, Italy.....	11.7s.
1948	Fanny Blankers-Koen, Holland.....	11.2s.
1952	Shirley S. de la Hunty, Australia.....	10.9s.
1956	Shirley S. de la Hunty, Australia.....	10.7s.

400-Meter Relay

1928	Canada.....	48.4s.
1932	United States.....	47s.
1936	United States.....	46.9s.
1948	Holland.....	47.5s.
1952	United States.....	45.9s.
1956	Australia.....	44.5s.

Running High Jump

1928	Ethel Catherwood, Canada.....	5 ft. 3 in.
1932	Jean Shiley, United States.....	5 ft. 5¼ in.
1936	Ibolya Csak, Hungary.....	5 ft. 3 in.
1948	Alice Coachman, United States.....	5 ft. 6¼ in.
1952	Ester Brand, South Africa.....	5 ft. 5.75 in.
1956	Mildred McDaniel, United States.....	5 ft. 9¼ in.

Running Broad Jump

1948	V. O. Gyarmati, Hungary.....	18 ft. 8¼ in.
1952	Yvette Williams, New Zealand.....	20 ft. 5.66 in.
1956	Elzbieta Krzesinska, Poland.....	20 ft. 10 in.

Discus Throw

1928	Helena Konopacka, Poland.....	129 ft. 11½ in.
1932	Lillian Copeland, United States.....	133 ft. 2 in.
1936	Gisela Mauermayer, Germany.....	156 ft. 3¾ in.
1948	Micheline Ostermeyer, France.....	137 ft. 6½ in.
1952	Nina Romaschkova, U.S.S.R.....	168 ft. 8.5 in.
1956	Olga Fikotova, Czechoslovakia.....	176 ft. 1½ in.

Javelin Throw

1932	Mildred Didrikson, United States.....	143 ft. 4 in.
1936	Tilly Fleischer, Germany.....	148 ft. 2¼ in.
1948	Herma Bauma, Austria.....	149 ft. 6 in.
1952	Dana Zatopek, Czechoslovakia.....	165 ft. 7.05 in.
1956	Inessa Janzeme, U.S.S.R.....	176 ft. 8½ in.

Shot Put

1948	Micheline Ostermeyer, France.....	45 ft. 1½ in.
1952	Galina Zybina, U.S.S.R.....	50 ft. 2.58 in.
1956	Tamara Tishkyevich, U.S.S.R.....	54 ft. 5 in.

SWIMMING—MEN

50 Yards

1904	Zoltan de Halomay, Hungary.....	28s.
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100 Meters

1896	Alfred Hajos, Hungary.....	1m.22.2s.
1904	Zoltan de Halomay, Hungary.....	1m.2.8s.*
1906	C. M. Daniels, United States.....	1m.13s.
1908	C. M. Daniels, United States.....	1m.5.6s.
1912	Duke P. Kahanamoku, United States.....	1m.3.4s.
1920	Duke P. Kahanamoku, United States.....	1m.1.4s.
1924	John Weissmuller, United States.....	59s.
1928	John Weissmuller, United States.....	58.6s.
1932	Yasuji Miyazaki, Japan.....	58.2s.
1936	Ferenc Csik, Hungary.....	57.6s.
1948	Walter Ris, United States.....	57.3s.
1952	Clarke Scholes, United States.....	57.4s.
1956	Jon Henricks, Australia.....	55.4s.

* 100 yards.

220 Yards

1900	F. C. V. Lane, Australia.....	2m.25.2s.
1904	C. M. Daniels, United States.....	2m.44.2s.

400 Meters

1904	C. M. Daniels, United States.....	6m.16.2s.*
1906	Otto Sheff, Austria.....	6m.23.8s.
1908	Henry Taylor, Great Britain.....	5m.36.8s.
1912	G. R. Hodgson, Canada.....	5m.24.4s.
1920	Norman Ross, United States.....	5m.26.8s.
1924	John Weissmuller, United States.....	5m.4.2s.
1928	Albert Zorilla, Argentina.....	5m.1.6s.
1932	Clarence Crabbe, United States.....	4m.48.4s.
1936	Jack Medica, United States.....	4m.44.5s.
1948	William Smith, United States.....	4m.41s.
1952	Jean Boiteux, France.....	4m.30.7s.
1956	Murray Rose, Australia.....	4m.27.3s.

* 440 yards.

500 Meters

1896	Paul Neumann, Austria.....	8m.12.6s.
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880 Yards

1904	Emil Rausch, Germany.....	13m.11.4s.
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1,000 Meters

1900	John Jarvis, Great Britain.....	13m.40.2s.
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1,200 Meters

1896	Alfred Hajos, Hungary.....	18m.22.2s.
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1,500 Meters

1908	Henry Taylor, Great Britain.....	22m.48.4s.
1912	G. R. Hodgson, Canada.....	22m.
1920	Norman Ross, United States.....	22m.23.2s.
1924	A. M. Charlton, Australia.....	20m.6.6s.
1928	Arne Borg, Sweden.....	19m.51.8s.
1932	Kusuo Kitamura, Japan.....	19m.12.4s.
1936	Noboru Terada, Japan.....	19m.13.7s.
1948	James McLane, United States.....	19m.18.5s.
1952	Ford Konno, United States.....	18m.30s.
1956	Murray Rose, Australia.....	17m.58.9s.

1,600 Meters

1906	Henry Taylor, Great Britain.....	28m.28s.
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One Mile

1904	Emil Rausch, Germany.....	27m.18.2s.
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800-Meter Relay

1908	Great Britain.....	10m.55.6s.
1912	Australia.....	10m.11.6s.
1920	United States.....	10m.4.4s.

1924	United States.....	9m.53.4s.
1928	United States.....	9m.36.2s.
1932	Japan.....	8m.58.4s.
1936	Japan.....	8m.51.5s.
1948	United States.....	8m.46s.
1952	United States.....	8m.31.1s.
1956	Australia.....	8m.23.6s.

100-Meter Backstroke

1904	Walter Brack, Germany.....	1m.16.8s.*
1908	Arno Bieberstein, Germany.....	1m.24.6s.
1912	Harry Hebner, United States.....	1m.21.2s.
1920	Warren Kealoha, United States.....	1m.15.2s.
1924	Warren Kealoha, United States.....	1m.13.2s.
1928	George Kojac, United States.....	1m.8.2s.
1932	Masaji Kiyokawa, Japan.....	1m.8.6s.
1936	Adolph Kiefer, United States.....	1m.5.9s.
1948	Allen Stack, United States.....	1m.6.4s.
1952	Yoshinobu Oyakawa, United States.....	1m.5.4s.
1956	David Thiele, Australia.....	1m.2.2s.

* 100 yards.

200-Meter Butterfly

1956	Bill Yorzyk, United States.....	2m.19.3s.
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200-Meter Breast Stroke

1908	Frederick Holman, Great Britain.....	3m.9.2s.
1912	Walter Bathe, Germany.....	3m.1.8s.
1920	Haken Malmroth, Sweden.....	3m.4.4s.
1924	R. D. Skelton, United States.....	2m.56.6s.
1928	Yoshiyuki Tsuruta, Japan.....	2m.48.8s.
1932	Yoshiyuki Tsuruta, Japan.....	2m.45.4s.
1936	Tetsuo Hamuro, Japan.....	2m.42.5s.
1948	Joseph Verdeur, United States.....	2m.39.3s.
1952	John Davies, Australia.....	2m.34.4s.
1956	Masura Furukawa, Japan.....	2m.34.7s.

400-Meter Breast Stroke

1904	Georg Zacharias, Germany.....	7m.23.6s.
1920	Haken Malmroth, Sweden.....	6m.31.8s.

1,000-Meter Team Race

1906	Hungary.....	17m.16.2s.
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Springboard Diving

		Points
1904	G. E. Sheldon, United States.....	12 2-3
1906	Gottlob Walz, Germany.....	
1908	Albert Zuerner, Germany.....	85.5
1912	Paul Guenther, Germany.....	6
1920	L. E. Kuehn, United States.....	6
1924	A. C. White, United States.....	7
1928	Pete Desjardins, United States.....	185.04
1932	Michael Galitzen, United States.....	161.38
1936	Richard Degener, United States.....	163.57
1948	Bruce Harlan, United States.....	163.64
1952	David Browning, United States.....	205.29
1956	Robert Clotworthy, United States.....	159.56

Fancy High Diving

	Points
1912 Eric Adlerz, Sweden.....	7
1920 C. E. Pinkston, United States.....	7
1924 A. C. White, United States.....	9

Plain High Diving

		Points
1908	Hjalmar Johanssen, Sweden	83.75
1912	Erik Adlerz, Sweden	7
1920	Arvid Wallman, Sweden	7
1924	Richard Eve, Australia	13½

Plunge for Distance

1904	W. E. Dickey, United States.....	62 ft. 6 in.
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Platform Diving

		Points
1928	Pete Desjardins, United States	98.74
1932	Harold Smith, United States	124.80
1936	Marshall Wayne, United States	113.58
1948	Samuel Lee, United States	130.05
1952	Samuel Lee, United States	156.28
1956	Joaquin Capilla, Mexico	152.44

WATER POLO

1900	Great Britain	1928	Germany
1904	United States	1932	Hungary
1908	Great Britain	1936	Hungary
1912	Great Britain	1948	Italy
1920	Great Britain	1952	Hungary
1924	France	1956	Hungary

SWIMMING—WOMEN

100 Meters

1920	Ethelda Bleibtrey, United States	1m.13.6s.
1922	Fanny Durack, Australia	1m.22.2s.
1924	Ethel Lackie, United States	1m.12.4s.
1928	Albina Osipowich, United States	1m.11s.
1932	Helene Madison, United States	1m.6.8s.
1936	Hendrika Mastenbroek, Holland	1m.5.9s.
1948	Greta Andersen, Denmark	1m.6.3s.
1952	Katalin Szoke, Hungary	1m.6.8s.
1956	Dawn Fraser, Australia	1m.2s.

300 Meters

1920	Ethelda Bleibtrey, United States	4m.34s.
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400 Meters

1924	Martha Norelius, United States	6m.2.2s.
1928	Martha Norelius, United States	5m.42.8s.
1932	Helene Madison, United States	5m.28.5s.
1936	Hendrika Mastenbroek, Holland	5m.26.4s.
1948	Ann Curtis, United States	5m.17.8s.
1952	Valerie Gyenge, Hungary	5m.12.1s.
1956	Lorraine Crapp, Australia	4m.54.6s.

400-Meter Relay

1912	Great Britain	5m.52.8s.
1920	United States	5m.11.6s.
1924	United States	4m.58.8s.
1928	United States	4m.47.6s.
1932	United States	4m.38s.
1936	Holland	4m.36s.
1948	United States	4m.29.2s.
1952	Hungary	4m.24.4s.
1956	Australia	4m.17.1s.

100-Meter Backstroke

1924	Sybil Bauer, United States	1m.23.2s.
1928	Marie Braun, Holland	1m.22s.
1932	Eleanor Holm, United States	1m.19.4s.
1936	Dina Senff, Holland	1m.18.9s.
1948	Karen Harup, Denmark	1m.14.4s.
1952	Joan Harrison, South Africa	1m.14.3s.
1956	Judy Grinham, Great Britain	1m.12.9s.

100-Meter Butterfly

1956	Shelley Mann, United States	1m.11s.
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200-Meter Breast Stroke

1924	Lucy Morton, Great Britain	3m.33.2s.
1928	Hilde Schrader, Germany	3m.12.6s.
1932	Clare Dennis, Australia	3m.6.3s.

1936	Hideko Maehata, Japan	3m.3.6s.
1948	Nel van Vliet, Netherlands	2m.57.2s.
1952	Eva Szekey, Hungary	2m.51.7s.
1956	Ursula Happe, Germany	2m.53.1s.

Plain High Diving

	Points
1912 Greta Johansson, Sweden.....	39.9
1920 Stefani Fryland, Denmark.....	6
1924 Caroline Smith, United States.....	9

Springboard Diving

	Points
1920 Aileen Riggan, United States.....	9
1924 Elizabeth Becker, United States.....	8
1928 Helen Meany, United States.....	78.62
1932 Georgia Coleman, United States.....	87.52
1936 Marjorie Gestring, United States.....	89.27
1948 Victoria M. Draves, United States.....	108.74
1952 Mrs. Patricia McCormick, United States.....	147.30
1956 Mrs. Patricia McCormick, United States.....	142.36

Platform High Diving

	Points
1928 Elizabeth B. Pinkston, United States	31.60
1932 Dorothy Poynton, United States	40.26
1936 Mrs. Dorothy Poynton Hill, United States	33.93
1948 Victoria M. Draves, United States	68.87
1952 Mrs. Patricia McCormick, United States	79.37
1956 Mrs. Patricia McCormick, United States	84.85

BASKETBALL

1904	United States	1952	United States
1936	United States	1956	United States
1948	United States		

BOXING

Flyweight

1904	George V. Finnegan, United States
1920	Frank De Genaro, United States
1924	Fidel La Barba, United States
1928	Anton Kocsis, Hungary
1932	Stephen Enekes, Hungary
1936	Willi Kaiser, Germany
1948	Pascual Perez, Argentina
1952	Nate Brooks, United States
1956	Terence Spinks, Great Britain

Bantamweight

1904	O. L. Kirk, United States
1908	H. Thomas, Great Britain
1920	Clarence Walker, South Africa
1924	W. H. Smith, South Africa
1928	Vittorio Tamagnini, Italy
1932	Horace Gwynne, Canada
1936	Ulderico Sergio, Italy
1948	Tibor Csik, Hungary
1952	Pentti Hamalainen, Finland
1956	Wolfgang Behrendt, Germany

Featherweight

1904	O. L. Kirk, United States
1908	R. K. Gunn, Great Britain
1920	Paul Fritsch, France
1924	John Fields, United States
1928	L. Van Klaveren, Holland
1932	Carmelo A. Robledo, Argentina
1936	Oscar Casanovas, Argentina
1948	Ernesto Formenti, Italy
1952	Jan Zachara, Czechoslovakia
1956	Vladimir Safronov, U.S.S.R.

Lightweight

1904	H. J. Spanger, United States
1908	F. Grace, Great Britain
1920	Samuel Mosberg, United States
1924	Harold Nielsen, Denmark
1928	Carlo Orlandi, Italy
1932	Lawrence Stevens, South Africa
1936	Imre Harangi, Hungary
1948	Gerry Dreyer, South Africa
1952	Aureliano Bolognesi, Italy
1956	Richard McTaggart, Great Britain

Light Welterweight

1952	Charles Adkins, United States
1956	Vladimir Enguibarman, U.S.S.R.

Welterweight

1904	Al Young, United States
1920	T. Schneider, Canada
1924	J. S. Delarge, Belgium
1928	Edward Morgan, New Zealand
1932	Edward Flynn, United States
1936	Sten Suvio, Finland
1948	Julius Torma, Czechoslovakia
1952	Zygmunt Chycha, Poland
1956	Necolae Linca, Rumania

Light Middleweight

1952	Laszlo Papp, Hungary
1956	Laszlo Papp, Hungary

Middleweight

1904	Charles Mayer, United States
1908	John Douglas, Great Britain
1920	H. W. Mallin, Great Britain
1924	H. W. Mallin, Great Britain
1928	Piero Toscani, Italy
1932	Carmen Barth, United States
1936	Jean Despeaux, France
1948	Laszlo Papp, Hungary
1952	Floyd Patterson, United States
1956	Guenadii Chatkov, U.S.S.R.

Light Heavyweight

1920	Edward Eagan, United States
1924	H. J. Mitchell, Great Britain
1928	Victorio Avendano, Argentina
1932	David E. Carstens, South Africa
1936	Roger Michlot, France
1948	George Hunter, South Africa
1952	Norvel Lee, United States
1956	James Boyd, United States

Heavyweight

1904	Sam Berger, United States
1908	A. L. Oldham, Great Britain
1920	Rawson, Great Britain
1924	Otto von Porat, Norway
1928	A. Rodriguez Jurado, Argentina
1932	Santiago A. Lovell, Argentina
1936	Herbert Runge, Germany
1948	Rafael Iglesias, Argentina
1952	Edward Sanders, United States
1956	Peter Rademacher, United States

FIGURE SKATING**Men**

	Points
1908	Ulrich Salchow, Sweden..... 377.3
1920	Gillis Grafstrom, Sweden..... 405.5
1924	Gillis Grafstrom, Sweden..... 367.89
1928	Gillis Grafstrom, Sweden..... 385.77

1932	Karl Schaefer, Austria..... 371.1
1936	Karl Schaefer, Austria..... 422.7
1948	Richard Button, United States..... 191.177
1952	Richard Button, United States..... 192.258
1956	Hayes Alan Jenkins, United States..... 166.4

Women

1908	Mrs. Madge Syers, Great Britain..... 252.5
1920	Magda Mauroy, Sweden..... 182.7
1924	Mrs. Herma Szabo-Planck, Austria..... 299.17
1928	Sonja Henie, Norway..... 350.3
1932	Sonja Henie, Norway..... 328.94
1936	Sonja Henie, Norway..... 424.5
1948	Barbara Ann Scott, Canada..... 163.077
1952	Jeannette Altwegg, Great Britain..... 161.758
1956	Tehley Albright, United States..... 169.6

Pairs

1908	Alma Huber-Heinrich Burger, Germany..... 11.2
1920	Ludovika and Walter Jacobsson, Finland..... 11.5
1924	Helene Englemann-Alfred Berger, Austria..... 10.64
1928	Andree Joly-Pierre Brunet, France..... 11.2
1932	Andree and Pierre Brunet, France..... 10.95
1936	Maxie Herber-Ernst Baier, Germany..... 11.5
1948	Micheline Lannoy-Pierre Baughniet, Belgium..... 11.227
1952	Ria and Paul Falk, Germany..... 11.4
1956	Elisabeth Schwarz-Kurt Oppelt, Austria..... 11.31

Special Figures

1908	Nikolai Panin, Russia..... 43.8
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SPEED SKATING**500 Meters**

	Points
1924	Charles Jewtraw, United States..... 44s.
1928	Clas Thunberg, Finland, and Bernt Even- sen, Norway (tie)..... 43.4s.
1932	John Shea, United States..... 43.4s.
1936	Ivar Ballangrud, Norway..... 43.4s.
1948	Finn Helgesen, Norway..... 43.1s.
1952	Ken Henry, United States..... 43.2s.
1956	Eugeny Grishin, U.S.S.R..... 40.2s.

1,500 Meters

1924	Clas Thunberg, Finland..... 2m. 20.8s.
1928	Clas Thunberg, Finland..... 2m. 21.1s.
1932	John Shea, United States..... 2m. 57.5s.
1936	Charles Mathisen, Norway..... 2m. 19.2s.
1948	Sverre Farstad, Norway..... 2m. 17.6s.
1952	Hjalmar Andersen, Norway..... 2m. 20.4s.
1956	Eugeny Grishin, U.S.S.R., and Yuri Mik- hailov, U.S.S.R. (tie)..... 2m. 8.6s.

5,000 Meters

1924	Clas Thunberg, Finland..... 8m. 39s.
1928	Ivar Ballangrud, Norway..... 8m. 50.5s.
1932	Irving Jaffee, United States..... 9m. 40.8s.
1936	Ivar Ballangrud, Norway..... 8m. 19.6s.
1948	Reidar Liakley, Norway..... 8m. 29.4s.
1952	Hjalmar Andersen, Norway..... 8m. 10.6s.
1956	Boris Shilkov, U.S.S.R..... 7m. 48.7s.

10,000 Meters

1924	Julien Skutnabb, Finland..... 18m. 4.8s.
1928	*Irving Jaffee, United States..... 18m. 36.5s.
1932	Irving Jaffee, United States..... 19m. 13.6s.
1936	Ivar Ballangrud, Norway..... 17m. 24.3s.
1948	Ake Seyffarth, Sweden..... 17m. 26.3s.
1952	Hjalmar Andersen, Norway..... 16m. 45.8s.
1956	Sigge Ericsson, Sweden..... 16m. 35.9s.

*Thaw caused cancellation of event. Jaffee had best time.

Combined

1924	Clas Thunberg, Finland..... 5.5 pts.
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Other 1956 Olympic Champions

Field hockey.....	India
Ice Hockey.....	U.S.S.R.
Soccer.....	U.S.S.R.

Bobsledding

- 2-man—Italy
4-man—Switzerland

Canoeing

KAYAK

- 1,000-m. singles—Gert Fredriksson, Sweden
1,000-m. pairs—Michael Scheuer-Meinrad Miltenberger, Germany
10,000-m. singles—Gert Fredriksson, Sweden
10,000-m. pairs—Janos Uranyi-Laszlo Fabian, Hungary
500-m. women's singles—Elisavota Dementieva, U.S.S.R.

CANADIAN

- 1,000-m. singles—Leon Rottman, Rumania
1,000-m. pairs—Alexe Dumitru-Simion Ismailciuc, U.S.S.R.
10,000-m. singles—Leon Rottman, Rumania
10,000-m. pairs—Pavel Kharin-Gratsian Botev, U.S.S.R.

Cycling

- 1,000-m. sprint—Michel Rousseau, France
1,000-m. time trial—Leandro Faggini, Italy
2,000-m. tandem—Ian Browne-Tony Marchanti, Austria
4,000-m. tandem—Italy
Road race—Ercolo Baldini, Italy. Team—France

Equestrian

- 3-day event—Petrus Kastenman, Sweden. Team—Great Britain
Dressage—Henri St. Cyr, Sweden. Team—Sweden
Jumping—Hans Winkler, Germany. Team—Germany

Fencing

- Foil—Christian D'Orsola, France. Team—Italy
Epee—Carlo Pavesti, Italy. Team—Italy
Saber—Rudolf Karpati, Hungary. Team—Hungary
Women's foil—Gillian Sheen, Great Britain

Gymnastics

- Pommed horse—Boris Chakhline, U.S.S.R.
Parallel bars—Victor Tchoukarine, U.S.S.R.
Free standing exercises—Valentine Mouratov, U.S.S.R.
Rings—Albert Azarian, U.S.S.R.
Horizontal bar—Takashi Ono, Japan
Combined exercises—Victor Tchoukarine, U.S.S.R.
Long horse—Helmuth Bantz, Germany, and Valentine Mouratov, U.S.S.R. (tie)
Team—U.S.S.R.

WOMEN

- Beam exercises—Agnes Keleti, Hungary
Free standing exercises—Agnes Keleti, Hungary, and Larisa Latynina, U.S.S.R. (tie)
Side horse vaulting—Larisa Latynina, U.S.S.R.
Parallel bars—Agnes Keleti, Hungary
Combined exercises—Larisa Latynina, U.S.S.R.
Team drill—Hungary
Team—U.S.S.R.

Modern Pentathlon

- Individual—Lars Hall, Sweden
Team—U.S.S.R.

Rowing

- Eights—United States (Yale)
Fours with coxswain—Italy
Fours without coxswain—Canada
Pairs with coxswain—United States (Art Ayrault, Conn Findlay, Kurt Seiffert)
Pairs without coxswain—United States (James Fifer, Duval Hecht)
Double sculls—U.S.S.R. (Alexandre Berkoutov, Iuri Tiukalov)
Single sculls—Vyacheslav Ivanov, U.S.S.R.

Shooting

- Free pistol—Pentti Limnosvuori, Finland
Clay pigeon—Galliano Rossini, Italy
Free rifle—Vassili Borissov, U.S.S.R.
Running deer—Vitali Romanenko, U.S.S.R.
Small bore rifle (prone, kneeling, standing)—Anatoli Bogdanov, U.S.S.R.
Rapid silhouette pistol—Stevan Petrescu, Rumania
Small bore rifle—Gerald Ouellette, Canada

Skiing

- Special slalom—Toni Sailer, Austria
Giant slalom—Toni Sailer, Austria
Downhill—Toni Sailer, Austria
15-km. race—Hallgeir Brenden, Norway
30-km. race—Veikko Hakulin, Finland
50-km. race—Sixten Jernberg, Sweden
Nordic combined—Sverre Stenersen, Norway
40-km. relay—U.S.S.R.

WOMEN

- Special slalom—Renee Colliard, Switzerland
Giant slalom—Ossi Reichert, Germany
Downhill—Madeleine Berthod, Switzerland
10-km. race—Lyubov Kozyreva, U.S.S.R.
15-km. relay—Finland

Weightlifting

- Bantamweight—Charles Vinci, United States
Featherweight—Isaac Berger, United States
Lightweight—Igor Rybak, U.S.S.R.
Middleweight—Fedor Bogdanovskii, U.S.S.R.
Light heavyweight—Tommy Kono, United States
Middle heavyweight—Arkadi Vorobiev, U.S.S.R.
Heavyweight—Paul Anderson, United States

Wrestling

FREE STYLE

- Flyweight—Marian Tsalkalmanidze, U.S.S.R.
Bantamweight—Mustafa Dagistanli, Turkey
Featherweight—Shoze Sasabara, Japan
Lightweight—Emamli Habibi, Iran
Welterweight—Mistro Ikeda, Japan
Middleweight—Nikolai Nikolov, Bulgaria
Light heavyweight—Gholam Takhti, Iran
Heavyweight—Hamid Kaplan, Turkey
Team—Turkey

GRECO-ROMAN

- Flyweight—Nikolai Soloviev, U.S.S.R.
Bantamweight—Konstantin Vyropae, U.S.S.R.
Featherweight—Rauno Makinen, Finland
Lightweight—Kyosti Lehtonen, Finland
Welterweight—Mithat Bayrak, Turkey
Middleweight—Vuivi Kartozia, U.S.S.R.
Light heavyweight—Valentine Nikolaev, U.S.S.R.
Heavyweight—Anatoli Parfenov, U.S.S.R.
Team—U.S.S.R.

Yachting

- 5.5-meter class—Rush V, Sweden
Star class—Kathleen, United States
Dragon class—Slaghoken II, Sweden
Dinghy finn class—Paul Elvstrom, Denmark
Sharpie class—Jest, New Zealand

TRACK AND FIELD

RUNNING, jumping, hurdling and throwing weights—track and field sports, in other words—are as natural to boys and young men as eating, drinking and breathing. Unorganized competition in this form of sport goes back beyond the Cave Man era. Organized competition begins with the first recorded Olympic Games in Greece, 776 B. C., when Coroebus of Elis won the only event on the program, a race of approximately 200 yards. The Olympic Games, with an ever-widening program of events, continued until "the glory that was Greece" had faded and "the grandeur that was Rome" was tarnished, and finally were abolished by decree of Emperor Theodosius I of Rome in A. D. 394. The Tailteann Games of Ireland are supposed to have antedated the first Olympic Games by some centuries, but we have no records of the specific events and winners thereof.

Professional contests of speed and strength were popular at all times and in many lands, but the widespread competition of amateur athletes in track and field

sports is a comparatively modern development. The first organized amateur athletic meet of record was sponsored by the Royal Military Academy at Woolwich, England, in 1849. Oxford and Cambridge track and field rivalry began in 1864 and the English amateur championships were established in 1866. In the United States such organizations as the New York Athletic Club and the Olympic Club of San Francisco conducted track and field meets in the 1870's, and a few colleges joined to sponsor a meet in 1874. The success of the college meet led to the formation of the Intercollegiate Association of Amateur Athletes of America and the holding of an annual set of championship games beginning in 1876.

Many athletic clubs joined the National Association of Amateur Athletes of America, formed in 1879, but dissension broke up this organization and the Amateur Athletic Union, organized in 1888, has been the ruling body in American amateur athletics since that time.

Track and Field Statistics

Source: Amateur Athletic Union of the United States.

MEN'S WORLD RECORDS

Recognized by the International Amateur Athletic Federation as of Oct. 1, 1959

RUNNING

Event	Record	Holder	Home country	Where made	Date
		Melvin E. Patton	United States	Fresno, Calif.	May 15, 1948
		Hector Hogan	Australia	Sydney	Mar. 13, 1954
		James Golliday	United States	Evanston, Ill.	May 14, 1955
		Leamon King	United States	Fresno, Calif.	May 12, 1956
100 yd.	9.3 s.	David Sime	United States	Durham, N. C.	May 19, 1956
		David Sime	United States	Sanger, Calif.	June 9, 1956
		David Sime	United States	Raleigh, N. C.	May 18, 1957
		Bobby Morrow	United States	Austin, Tex.	June 14, 1957
		Ray Norton	United States	San Jose, Calif.	April 12, 1958
220 yd.	20 s.	David Sime	United States	Sanger, Calif.	June 9, 1956
440 yd.	45.7 s.	Glenn Davis	United States	Berkeley, Calif.	June 14, 1958
880 yd.	1 m. 46.8 s.	Tom Courtney	United States	Los Angeles	May 24, 1957
1 mi.	3 m. 54.4 s.	Herb Elliott	Australia	Dublin	Aug. 6, 1958
2 mi.	8 m. 32 s.	Albert Thomas	Australia	Dublin	Aug. 7, 1958
3 mi.	13 m. 10.8 s.	Albert Thomas	Australia	Dublin	July 9, 1958
6 mi.	27 m. 43.8 s.	Sandor Iharos	Hungary	Budapest	July 15, 1956
10 mi.	48 m. 12 s.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Sept. 29, 1951
15 mi.	1 h. 14 m. 1 s.	Emil Zatopek	Czechoslovakia	Celakovice, Czech.	Oct. 29, 1955
1 hr.	12 mi. 810 yd.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Sept. 29, 1951

WALKING

Event	Record	Holder	Home country	Where made	Date
2 mi.	12 m. 45 s.	Werner Hardmo	Sweden	Malmö	Sept. 1, 1945
5 mi.	34 m. 32.8 s.	J. Dolezal	Czechoslovakia	Manchester, Eng.	Oct. 15, 1955
7 mi.	48 m. 15.2 s.	Werner Hardmo	Sweden	Kumla, Sweden	Sept. 9, 1945
10 mi.	1 h. 10 m. 45.8 s.	J. Dolezal	Czechoslovakia	Boleslav, Czech.	April 30, 1954
20 mi.	2 h. 33 m. 9.4 s.	J. Dolezal	Czechoslovakia	Boleslav, Czech.	May 14, 1954
30 mi.	4 h. 12 m. 3.4 s.	Ladislav Moc	Czechoslovakia	Prague	June 21, 1956
1 hr.	8 mi. 1025 yd.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	16 mi. 403 yds.	Edward Allsopp	Australia	Melbourne	Sept. 22, 1956

RUNNING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
100 meters	10.1 s.	Willie Williams	United States	Berlin	Aug. 3, 1956
		Ira Murchison	United States	Berlin	Aug. 4, 1956
		Leamon King	United States	Ontario, Calif.	Oct. 20, 1956
		Leamon King	United States	Santa Ana, Calif.	Oct. 27, 1956
200 m.	20 s.	David Sime	United States	Sanger, Calif.	June 9, 1956
400 m.	45.2 s.	Louis Jones	United States	Los Angeles	June 30, 1956
800 m.	1 m. 45.7 s.	Roger Moens	Belgium	Oslo	Aug. 3, 1955
1,000 m.	2 m. 18.1 s.	Dan Waern	Sweden	Turku, Finland	Sept. 19, 1958
1,500 m.	3 m. 38.1 s.	Stanislav Jungwirth	Czechoslovakia	Boleslav, Czech.	July 12, 1957
2,000 m.	5 m. 2.2 s.	Istvan Rozsavolgyi	Hungary	Budapest	Oct. 2, 1955
3,000 m.	7 m. 52.8 s.	Gordon Pirie	Great Britain	Malmo, Sweden	Sept. 4, 1956
5,000 m.	13 m. 35 s.	Vladimir Kuts	U.S.S.R.	Rome	Oct. 13, 1957
10,000 m.	28 m. 30.4 s.	Vladimir Kuts	U.S.S.R.	Moscow	Sept. 11, 1956
20,000 m.	59 m. 51.6 s.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
25,000 m.	1 h. 16 m. 36.4 s.	Emil Zatopek	Czechoslovakia	Celakovice, Czech.	Oct. 29, 1955
30,000 m.	1 h. 35 m. 1 s.	Albert Ivanov	U.S.S.R.	Moscow	June 6, 1957
1 hr.	20,052 meters 40 cm.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
3,000 m. steeplechase	8 m. 32 s.	Jerzy Chromik	Poland	Warsaw	Aug. 2, 1958

WALKING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
3,000 m.	11 m. 51.8 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5,000 m.	20 m. 26.8 s.	Werner Hardmo	Sweden	Kumla	July 31, 1945
10,000 m.	42 m. 39.6 s.	Werner Hardmo	Sweden	Kumla	Sept. 9, 1945
15,000 m.	1 h. 5 m. 18 s.	Leonid Spirin	U.S.S.R.	Dnepropetrovsk	Sept. 24, 1957
20,000 m.	1 h. 27 m. 38.6 s.	Grigory Panichkin	U.S.S.R.	Stalinabad	May 2, 1958
30,000 m.	2 h. 20 m. 40.2 s.	Anatoli Vedjakov	U.S.S.R.	Moscow	Oct. 7, 1955
50,000 m.	4 h. 21 m. 7 s.	Ladislav Moc	Czechoslovakia	Prague	June 21, 1956
1 hr.	13,812 m.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	26,117 m.	Edward Allsop	Australia	Melbourne	Sept. 22, 1956

HURDLES (10 hurdles)

Event	Record	Holder	Home country	Where made	Date
120 yd.	13.4 s.	Jack Davis	United States	Bakersfield, Calif.	June 22, 1956
		Jack Davis	United States	Bendigo, Australia	Nov. 17, 1956
		Milt Campbell	United States	Compton, Calif.	May 31, 1957
220 yd.	22.1 s.	Elias Gilbert	United States	Raleigh, N. C.	May 17, 1958
440 yd.	49.7 s.	Gerhardus Potgieter	South Africa	Cardiff, Wales	July 22, 1958
110 m.	13.4 s.	Jack Davis	United States	Bakersfield, Calif.	June 22, 1956
200 m.	22.1 s.	Elias Gilbert	United States	Raleigh, N. C.	May 17, 1958
400 m.	49.2 s.	Glenn Davis	United States	Budapest	Aug. 6, 1958

RELAY RACES

Event	Record	Holder	Home country	Where made	Date
440 yd. (4 x 110)	39.7 s.	Abilene Christian	United States	Modesto, Calif.	May 31, 1958
880 yd. (4 x 220)	1 m. 22.7 s.	(W. Griggs, W. Woodhouse, J. Segrest, B. Morrow)	University of Texas	Austin, Tex.	April 5, 1957
		(W. Wilson, E. Southern, H. Gainey, B. Whilden)	National Team	Los Angeles	Nov. 1, 1956
		(C. Jenkins, L. Spurrier, T. Courtney, L. Jones)	Occidental	Los Angeles	May 24, 1957
1 mi. (4 x 440 yd.)	3 m. 7.3 s.	(T. White, S. Reisbord, L. Wray, T. Hadley)	National Team	Gr. Brit. & No. Ire.	Sept. 27, 1958
2 mi. (4 x 880)	7 m. 22.8 s.	(M. Blagrove, P. Clark, D. Ibbotson, B. Hewson)			

RELAY RACES—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
400 m. (4 x 100)	39.5 s.	(T. Baker, L. King, I. Murchison, R. Morrow)	National Team	Melbourne	Dec. 1, 1956
800 m. (4 x 200)	1 m. 22.7 s.	(M. Steinbach, M. Lauer, H. Futterer, M. Germar)	National Team	Cologne	Aug. 29, 1958
		(W. Wilson, E. Southern, H. Gainey, B. Whilden)	University of Texas	Austin, Tex.	April 5, 1957
		(A. Wint, L. Laing, H. McKenley, G. Rhoden)	National Team	Jamaica, B.W.I.	July 27, 1952
3,200 m. (4 x 800)	7 m. 15.8 s.	(A. Bailleux, A. Langenus, E. Leva, R. Moens)	National Team	Brussels	Aug. 8, 1956
6,000 m. (4 x 1,500)	15 m. 11.4 s.	(S. Hermann, K. Richtzenhain, H. Reinngel, S. Valentin)	National Team	Poznan, Poland	Aug. 9, 1958

FIELD EVENTS

Event	Record	Holder	Home country	Where made	Date
High jump	7 ft. 1 in.	Yuri Stepanov	U.S.S.R.	Leningrad	July 13, 1957
Running broad jump	26 ft. 8½ in.	Jesse Owens	United States	Ann Arbor	May 25, 1935
Hop, step & jump	54 ft. 5 in.	Oleg Rjakhovsky	U.S.S.R.	Moscow	July 28, 1958
Pole vault	15 ft. 8¼ in.	Bob Gutowski	United States	Palo Alto, Calif.	April 27, 1957
16-lb. shot put	63 ft. 1¾ in.	Parry O'Brien	United States	Los Angeles	Nov. 1, 1956
Discus throw	194 ft. 6 in.	Fortune Gordien	United States	Pasadena, Calif.	Aug. 22, 1953
Javelin throw	281 ft. 2 in.	Egil Danielsen	Norway	Melbourne	Nov. 26, 1956
Hammer throw	225 ft. 4 in.	Harold Connolly	United States	Bakersfield, Calif.	June 20, 1958

DECATHLON

Points	Holder	Home country	Where made	Date
8,203 pts.	Rafer Johnson	United States	Moscow	July 27-28, 1958

WOMEN'S WORLD RECORDS

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.	10.3 s.	Marlene Mathews	Australia	Sydney	Mar. 20, 1958
220 yd.	23.4 s.	Marlene Mathews	Australia	Sydney	Mar. 22, 1958
440 yd.	55.6 s.	Molly Hiscox	Great Britain	London	Aug. 2, 1958
880 yd.	2 m. 6.6 s.	Nina Otkalenko	U.S.S.R.	Moscow	June 10, 1956
60 m.	7.3 s.	Stella Walasiewicz	Poland	Lemberg, Pol.	Sept. 24, 1933
100 m.	11.3 s.	Shirley de la Hunty	Australia	Warsaw	Aug. 4, 1955
200 m.	23.2 s.	Betty Cuthbert	Australia	Sydney	Sept. 16, 1956
400 m.	53.6 s.	Maria Itkina	U.S.S.R.	Moscow	July 6, 1957
800 m.	2 m. 5 s.	Nina Otkalenko	U.S.S.R.	Zagreb, Yugoslavia	Sept. 24, 1956

RELAY RACES

440 yd. (4 x 110)	45.3 s.	National Team	Gr. Brit. & No. Ire.	Cardiff, Wales	July 26, 1958
		(H. Young, J. Paul, D. Hyman, V. Weston)			
400 m. (4 x 100)	44.5 s.	National Team	Australia	Melbourne	Dec. 1, 1956
		(S. de la Hunty, N. Croker, F. Mellor, B. Cuthbert)			
880 yd. (4 x 220)	1 m. 36.3 s.	National Team	Australia	Sydney	Dec. 5, 1956
		(M. Mathews, N. Croker, F. Mellor, B. Cuthbert)			
800 m. (4 x 200)	1 m. 36.3 s.	National Team	Australia	Sydney	Dec. 5, 1956
		(M. Mathews, N. Croker, F. Mellor, B. Cuthbert)			
2,400 m. (3 x 800)	6 m. 27.6 s.	National Team	U.S.S.R.	Moscow	Sept. 11, 1955
		(N. Otkalenko, L. Lisenko, L. A. Lapshina)			
1½ mi. (3 x 880)	6 m. 36.2 s.	National Team	Hungary	Tata	July 21, 1954
		(A. Bacscai, A. Oros, A. Kazi)			

HURDLES

80 m.	10.6 s.	Zenta Gastl	Germany	Frenchen	July 29, 1956
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FIELD EVENTS

High jump	6 ft.	Yolanda Balas	Rumania	Bucharest	Oct. 18, 1958
Broad jump	20 ft. 10 in.	Elzbieta Krzeskiska	Poland	Budapest	Aug. 20, 1956
		Elzbieta Krzeskiska	Poland	Melbourne	Nov. 27, 1956
Shot put	54 ft. 11¼ in.	Galina Zybina	U.S.S.R.	Tashkent, U.S.S.R.	Oct. 13, 1956
Discus throw	187 ft. 1½ in.	Nina Dumbadze	U.S.S.R.	Tbilisi, U.S.S.R.	Oct. 18, 1952
Javelin throw	188 ft. 4 in.	Anna Pazera	Australia	Cardiff, Wales	July 24, 1958

PENTATHLON

4,846 pts.	Galina Bystrova	U.S.S.R.	Odessa	Oct. 15-16, 1957
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U. S. BOBSLEDDING RECORDS

Records for the Mt. Van Hoevenberg slide at Lake Placid, N. Y., the only bobsled run in America:

OLYMPIC BOBRUN (5,178 Feet)

(Times in minutes and seconds)

Two-man (single heat)—Stan Benham-Pat Martin, Sno Birds of Lake Placid (Feb. 16, 1957)	1:12.60
Two-man (4 heats)—Stan Benham-Pat Martin, Sno Birds of Lake Placid (Feb. 16, 1957)	4:52.83
Four-man (single heat)—Stan Benham, Pat Martin, Charles Pandolph, John Helmer, Sno Birds of Lake Placid (Feb. 22, 1957)	1:08.88
Four-man (4 heats)—Art Tyler, Doug Tyler, Parker Vooris, Tom Butler, Adirondack B. C.	4:41.36

HALF-MILE COURSE (2,323 Feet)

Two-man (single heat)—Fred Fortune-John Young, Lake Placid B. C. (Jan. 3, 1959)	0:38.80
Two-man (4 heats)—Fred Fortune-John Young, Lake Placid B. C. (Jan. 3, 1959)	2:36.76
Four-man (single heat)—James Bickford, driver; Pat Buckley; Lucien Miron; William Dupree, brake, Saranac Lake B. C. (Jan. 27, 1946)	0:37.08
Four-man (4 heats)—James Bickford, driver; Pat Buckley; Lucien Miron; William Dupree, brake, Saranac Lake B. C. (Jan. 27, 1946)	2:29.07

HISTORY OF THE RECORD FOR THE MILE RUN

Time	Athlete	Country	Year	Where Made
4:56.0.....	Charles Lawes.....	England.....	1864.....	England
4:36.5.....	Richard Webster.....	England.....	1865.....	England
4:29.0.....	William Chinnery.....	England.....	1868.....	England
4:28.8.....	W. C. Gibbs.....	England.....	1868.....	England
4:26.0.....	Walter Slade.....	England.....	1874.....	England
4:24.5.....	Walter Slade.....	England.....	1875.....	London, England
4:23.2.....	Walter George.....	England.....	1880.....	London, England
4:21.4.....	Walter George.....	England.....	1882.....	London, England
4:19.4.....	Walter George.....	England.....	1882.....	London, England
4:18.4.....	Walter George.....	England.....	1884.....	Birmingham, England
4:18.2.....	Fred Bacon.....	Scotland.....	1894.....	Edinburgh, Scotland
4:17.0.....	Fred Bacon.....	Scotland.....	1895.....	London, England
4:15.6.....	Thomas Conneff.....	United States.....	1895.....	Travers Island, N. Y.
4:15.4.....	John Paul Jones.....	United States.....	1911.....	Cambridge, Mass.
4:14.4.....	John Paul Jones.....	United States.....	1913.....	Cambridge, Mass.
4:12.6.....	Norman Taber.....	United States.....	1915.....	Cambridge, Mass.
4:10.4.....	Paavo Nurmi.....	Finland.....	1923.....	Stockholm, Sweden
4:09.2.....	Jules Ladoumègue.....	France.....	1931.....	Paris, France
4:07.6.....	Jack Lovelock.....	New Zealand.....	1933.....	Princeton, N. J.
4:06.8.....	Glenn Cunningham.....	United States.....	1934.....	Princeton, N. J.
4:06.4.....	Sydney Wooderson.....	England.....	1937.....	London, England
4:06.2.....	Gunder Hagg.....	Sweden.....	1942.....	Göteborg, Sweden
4:06.2.....	Arne Andersson.....	Sweden.....	1942.....	Stockholm, Sweden
4:04.6.....	Gunder Hagg.....	Sweden.....	1942.....	Stockholm, Sweden
4:02.6.....	Arne Andersson.....	Sweden.....	1943.....	Göteborg, Sweden
4:01.6.....	Arne Andersson.....	Sweden.....	1944.....	Malmö, Sweden
4:01.4.....	Gunder Hagg.....	Sweden.....	1945.....	Malmö, Sweden
3:59.4.....	Roger Bannister.....	England.....	1954.....	Oxford, England
3:58.0.....	John Landy.....	Australia.....	1954.....	Turku, Finland
3:57.2.....	Derek Ibbotson.....	England.....	1957.....	London, England
3:54.5.....	Herb Elliott.....	Australia.....	1958.....	Dublin, Ireland

Runs Mile in 3:58.6—Finishes Fifth in Race!

Until May 6, 1954, the day Roger Bannister of England ran the mile in 3 minutes 59.4 seconds, many observers clung to the belief it was impossible for man to dip below four minutes.

The progress man has made since is best illustrated by the performance of Albert Thomas, an Australian, four years after Bannister's epic feat. Competing in Dublin, Ireland, on Aug. 6, 1958, Thomas went by the finish line in 3:58.6, four-fifths of a second faster than Bannister's clocking, and netted no more than a dismal fifth place in the race! It was in this race that Herb Elliott, Thomas' countryman, shattered the world record with a time of 3:54.5.

When Elliott, on Sept. 3, 1958, won a mile in London, in 3:55.4, it marked the tenth time he had bettered four minutes in the calendar year. When Siegfried Valentin of East Germany ran 3:56.5 in May, 1959, he became the 22d athlete to better four minutes; among them these runners had turned in 51 sub-four-minute performances. Only one of these was performed by an American. Don Bowden of the University of California ran 3:58.7 at Stockton, Calif., on June 1, 1957.

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WORLD'S FASTEST MILES

Time	Athlete	Country	Date	Where Made
3:54.5.....	Herb Elliott.....	Australia.....	Aug. 6, 1958.....	Dublin, Ireland
3:55.4.....	Herb Elliott.....	Australia.....	Sept. 3, 1958.....	London, England
3:55.9a.....	Merv Lincoln.....	Australia.....	Aug. 6, 1958.....	Dublin, Ireland
3:56.5.....	Siegfried Valentin.....	East Germany.....	May 28, 1959.....	Frankfurt, Germany
3:57.2.....	Derek Ibbotson.....	England.....	July 19, 1957.....	London, England
3:57.5b.....	Ron Delany.....	Ireland.....	Aug. 6, 1958.....	Dublin, Ireland
3:57.5c.....	Murray Halberg.....	New Zealand.....	Aug. 6, 1958.....	Dublin, Ireland
3:57.8.....	Herb Elliott.....	Australia.....	May 16, 1958.....	Los Angeles, Calif.
3:57.9.....	Herb Elliott.....	Australia.....	June 21, 1958.....	Bakersfield, Calif.
3:58.0.....	John Landy.....	Australia.....	June 21, 1954.....	Turku, Finland
3:58.0.....	Herb Elliott.....	Australia.....	Aug. 29, 1958.....	Malmö, Sweden
3:58.1.....	Herb Elliott.....	Australia.....	June 6, 1958.....	Compton, Calif.
3:58.4.....	Derek Ibbotson.....	England.....	June 15, 1957.....	Glasgow, Scotland
3:58.5.....	Dan Waern.....	Sweden.....	Sept. 4, 1957.....	Malmö, Sweden
3:58.5a.....	Merv Lincoln.....	Australia.....	June 21, 1958.....	Bakersfield, Calif.

aFinished second. bFinished third. cFinished fourth.

BOWLING

THE GAME OF bowling that is the favorite sport of millions of "keglers" in the United States is an indoor development of the more ancient outdoor game that survives as lawn bowling. The outdoor game is prehistoric in origin and probably goes back to Primitive Man and round stones that were rolled at some target. It is believed that a game something like nine-pins was popular among the Dutch, Swiss and Germans as long ago as A.D. 1200 at which time the game was played outdoors with an alley consisting of a single plank 12 to 18 inches wide along which was rolled a ball toward three rows of three pins each placed at the far end of the alley. When the first indoor alleys were built and how the game was modified from time to time are matters of dispute. Much of the confusion arises from a lack of certainty as to which game is meant, "bowls" or "bowling," one with a "jack" and the other with "pins," in historical passages.

It is supposed that the early settlers of New Amsterdam (New York City) being Dutch, they brought their two bowling games with them. About a century ago the game of nine-pins was flourishing in the United States but so corrupted by gambling on matches that it was barred by law in New York and Connecticut. Since the law specifically barred "nine-pins," it was eventually evaded by adding another pin and thus legally making it a new game. The genius who thought up that simple method of outwitting the law and putting a popular game in motion once more remained modestly anonymous. With the increase in the number of pins, the old diamond formation of nine-pins was abandoned for the triangle set-up of ten-pins that remains the rule to this day. Various organizations were formed to make rules for bowling and supervise competition in the United States but none was successful until the American Bowling Congress, organized Sept. 9, 1895, became the ruling body.

American Bowling Congress Tournament Records

Source; Ed Marcou, American Bowling Congress.

Type of record	Holder and home city	Score	Year
High team total.....	Pfeiffer Beer, Detroit.....	3243	1959
High team game.....	Falstaff Beer, San Antonio, Texas.....	1226	1958
High doubles total.....	Steve Nagy-John Klare, Cleveland.....	1453	1952
High doubles game.....	John Gworek—Henry Kmiodowski, Buffalo.....	544	1946
High singles total.....	Lee Jouglaard, Detroit.....	775	1951
High all events total.....	Ed Lubanski, Detroit.....	2116	1959
High 3 games in any event.....	Lee Jouglaard, Detroit.....	775	1951

AMERICAN BOWLING CONGRESS CHAMPIONS

SINGLES

Year	Score	Year	Score
1901 Frank Brill, Chicago.....	648	1929 Adolphe Unke, Milwaukee.....	728
1902 Fred Strong, Chicago.....	649	1930 Larry Shotwell, Covington, Ky.....	774
1903 Dan A. Jones, Milwaukee.....	683	1931 Walter Lachowski, Erie, Pa.....	712
1904 Martin Kern, St. Louis.....	647	1932 Otto Nitschke, Cleveland.....	731
1905 C. M. Anderson, St. Paul, Minn.....	651	1933 Earl Hewitt, Erie, Pa.....	724
1906 Frank J. Favour, Oshkosh, Wis.....	669	1934 Jerry Vidro, Grand Rapids, Mich.....	721
1907 M. T. Levey, Indianapolis.....	*624	1935 Don Brokaw, Canton, Ohio.....	733
1908 Archie Wengler, Chicago.....	699	1936 Charles Warren, Springfield, Ill.....	735
1909 Larry Sutton, Rochester, N. Y.....	*691	1937 Gene Gagliardi, Mt. Vernon, N. Y.....	749
1910 Thomas Haley, Detroit.....	705	1938 Knute Anderson, Moline, Ill.....	746
1911 James Blouin, Chicago.....	681	1939 Jim Danek, Forest Park, Ill.....	730
1912 Larry Sutton, Rochester, N. Y.....	679	1940 Ray Brown, Terre Haute, Ind.....	742
1913 F. Peterson, Columbus, Ohio.....	693	1941 Fred Ruff, Belleville, Ill.....	745
1914 William Miller, Detroit.....	675	1942 John Stanley, Cleveland.....	756
1915 Wallace Pierce, Pueblo, Colo.....	711	1946 Lee Rollick, Los Angeles.....	737
1916 Sam Schlman, Toronto.....	*685	1947 Junie McMahon, Chicago.....	740
1917 Otto Kallusch, Rochester, N. Y.....	698	1948 Lincoln Protich, Akron, Ohio.....	721
1918 C. Styles, Detroit.....	702	1949 Bernard Rusche, St. Bernard, Ohio.....	716
1919 Harry Cavan, Pittsburgh.....	718	1950 Everett Lelns, Aurora, Ill.....	757
1920 Joe Shaw, Chicago.....	713	1951 Lee Jouglaard, Detroit.....	775
1921 F. Smith, Detroit.....	702	1952 Al Sharkey, Chicago.....	758
1922 Walter Lundgren, Chicago.....	729	1953 Frank Santore, Long Island City, N. Y.....	749
1923 Carl Baumgartner, Cincinnati.....	724	1954 Tony Sparando, Rego Park, N. Y.....	723
1924 Harry E. Snyder, Pittsburgh.....	749	1955 Eddie Gerzine, Milwaukee.....	738
1925 Al Green, Chicago.....	706	1956 George Wade, Steubenville, Ohio.....	744
1926 Ed Votal, Braddock, Pa.....	731	1957 Bob Allen, Yonkers, N. Y.....	729
1927 William Eggers, Chicago.....	706	1958 Ed Shay, Chester, Pa.....	733
1928 Henry Summers, St. Louis.....	705		

* Won roll-off.

American Bowling Congress Champions (cont.)

ALL-EVENTS

Year	Score	Year	Score
1901 Frank Brill, Chicago.....	1736	1929 Otto Stein, Jr., St. Louis.....	1974
1902 John Koster, New York.....	1841	1930 George Morrison, Chicago.....	1985
1903 Fred Strong, Chicago.....	1896	1931 Michael Mauser, Youngstown, Ohio.....	1966
1904 Martin Kern, St. Louis.....	1804	1932 Hugh Stewart, Cincinnati.....	1980
1905 Jack G. Reilly, Chicago.....	1791	1933 Gilbert Zunker, Milwaukee.....	2060
1906 J. T. Peacock, Indianapolis.....	1794	1934 Walt Reppenhagen, Detroit.....	1972
1907 H. C. Ellis, Grand Rapids, Mich.....	1775	1935 Ora Mayer, San Francisco.....	2022
1908 Russell Crable, E. Liverpool, Ohio.....	1924	1936 John Murphy, Indianapolis.....	2006
1909 James Blouin, Chicago.....	1885	1937 Max Stein, Belleville, Ill.....	2070
1910 Thomas Haley, Detroit.....	1961	1938 Don Beatty, Jackson, Mich.....	1978
1911 Jimmy Smith, Buffalo, N. Y.....	1919	1939 Joe Wilman, Chicago.....	2028
1912 Phil Sutton, Louisville, Ky.....	1843	1940 Fred Fisher, Buffalo, N. Y.....	2001
1913 Ed Hermann, Cleveland.....	1972	1941 Harold Kelly, South Bend, Ind.....	2013
1914 William Miller, Detroit.....	1897	1942 Stan Moskal, Saginaw, Mich.....	1973
1915 Matty E. Faetz, Chicago.....	1876	1946 Joe Wilman, Chicago.....	2054
1916 Frank Thoma, Chicago.....	1919	1947 Junie McMahon, Chicago.....	1965
1917 H. Miller, Detroit.....	1945	1948 Ned Day, West Allis, Wis.....	1979
1918 Harry Steers, Chicago.....	1959	1949 John Small, Chicago.....	1941
1919 Mort Lindsey, New Haven, Conn.....	1933	1950 Frank Santore, Long Island City, N. Y.....	1981
1920 Jimmy Smith, Milwaukee.....	1915	1951 Tony Lindeman, Detroit.....	2005
1921 Art Schieman, Rochester, N. Y.....	1909	1952 Steve Nagy, Cleveland.....	2065
1922 Barney Spinella, Brooklyn, N. Y.....	1999	1953 Frank Santore, Long Island City, N. Y.....	1994
1923 William J. Knox, Philadelphia.....	2019	1954 Brad Lewis, Ashland, Ohio.....	1985
1924 A. F. Weber, Elizabeth, N. J.....	1975	1955 Fred Bujack, Detroit.....	1993
1925 Clarence Long, Buffalo, N. Y.....	1977	1956 Bill Lillard, Chicago.....	2018
1926 Harry Gerloski, Detroit.....	1981	1957 Jim Spalding, Louisville, Ky.....	2088
1927 Barney Spinella, Brooklyn, N. Y.....	2014	1958 Al Faragalli, Paterson, N. J.....	2043
1928 Phil Wolff, Chicago.....	1937		

NATIONAL MATCH GAME CHAMPIONS

Tournaments Conducted by Bowling Proprietors Association of America
SINGLES

1941-42 John Crimmins, Detroit	1950-51 Dick Hoover, Akron, Ohio
1942-43 Connie Schwoegler, Madison, Wis.	1951-52 Junie McMahon, Fair Lawn, N. J.
1943-44 Ned Day, Milwaukee	1952-53 Don Carter, St. Louis
1944-45 Buddy Bomar, Chicago	1953-54 Don Carter, St. Louis
1945-46 Joe Wilman, Chicago	1954-55 Steve Nagy, Cleveland
1946-47 Andy Varipapa, Hempstead, N. Y.	1955-56 Bill Lillard, Chicago
1947-48 Andy Varipapa, Hempstead, N. Y.	1956-57 Don Carter, St. Louis
1948-49 Connie Schwoegler, Madison, Wis.	1957-58 Don Carter, St. Louis
1949-50 Junie McMahon, Fair Lawn, N. J.	

WOMAN'S INTERNATIONAL BOWLING CONGRESS CHAMPIONS

Source: Emma Phaler, Secretary, Woman's International Bowling Congress, Inc.

SINGLES

Year	Score	Year	Score
1918 Mrs. F. Steib, Detroit.....	537	1937 Mrs. Anna Gottstine, Buffalo, N. Y.....	647
1919 Mrs. R. Littlefield, Newark, N. J.....	594	1938 Mrs. Rose Warner, Waukegan, Ill.....	622
1920 Mrs. T. Humphreys, St. Louis.....	559	1939 Helen Hengstler, Detroit.....	626
1921 Mrs. Emma Jaeger, Toledo, Ohio.....	579	1940 Mrs. Sally Twyford, Aurora, Ill.....	626
1922 Mrs. Emma Jaeger, Toledo, Ohio.....	603	1941 Nancy Huff, Los Angeles.....	662
1923 Mrs. Emma Jaeger, Toledo, Ohio.....	594	1942 Tillie Taylor, Newark, N. J.....	659
1924 Alice Feeney, Indianapolis.....	593	1946 Val Mikiel, Detroit.....	682
1925 Mrs. E. Reich, Chicago.....	622	1947 Agnes Junker, Indianapolis.....	650
1926 Mrs. L. Weismann, Indianapolis.....	579	1948 Shirlee Wernecke, Chicago.....	696
1927 Mrs. F. Ehrhart, Akron, Ohio.....	577	1949 Mrs. Clara Mataya, St. Louis.....	658
1928 Anita Rump, Ft. Wayne, Ind.....	622	1950 Cleo Stalkamp, Newport, Ky.....	669
1929 Mrs. Agnes Higgins, Chicago.....	637	1951 Ida Simpson, Buffalo, N. Y.....	639
1930 Anita Rump, Ft. Wayne, Ind.....	613	1952 Lorene Craig, Kansas City, Mo.....	672
1931 Mrs. Myrtle Schulte, St. Louis.....	650	1953 Marge Baginski, Berwyn, Ill.....	637
1932 Audrey McVay, Kansas City, Mo.....	668	1954 Helen Anna, Peoria, Ill.....	668
1933 Mrs. Sally Twyford, Aurora, Ill.....	628	1955 Nellie Vella, Rockford, Ill.....	695
1934 Marie Clemensen, Chicago.....	712	1956 Lucille Noe, Columbus, Ohio.....	708
1935 Marie Warmbier, Chicago.....	652	1957 Eleanor Towles, Peoria, Ill.....	664
1936 Mrs. Ella Burneister, Madison, Wis.....	612	1958 Ruth Hertel, Lexington, Tenn.....	622

Women's International Bowling Congress Champions (cont.)

ALL-EVENTS

Year		Score	Year		Score
1918	Mrs. Emma Jaeger, Toledo, Ohio	1552	1937	Mrs. Louise Stockdale, Detroit	1761
1919	Mrs. B. Husk, Newark, N. J.	1580	1938	Dorothy Burmeister, Chicago	1843
1920	Mrs. M. Leibrich, Chicago	1606	1939	Ruth Troy, Dayton, Ohio	1724
1921	Mrs. Emma Jaeger, Toledo, Ohio	1557	1940	Mrs. Tess Morris, Chicago	1777
1922	Mrs. R. Abraham, Milwaukee	1659	1941	Mrs. Sally Twyford, Aurora, Ill.	1799
1923	Deane Zapf, Toledo, Ohio	1582	1942	Nina Van Camp, Chicago	1888
1924	Mrs. Rose Steger, Chicago	1647	1946	Catherine Fellmeth, Chicago	1835
1925	Mrs. Grayce Garwood, Cleveland	1703	1947	Marge Dardeen, Cincinnati	1826
1926	Mrs. E. Lackey, Ft. Wayne, Ind.	1641	1948	Virgie Hupfer, Burlington, Iowa	1850
1927	Mrs. Grayce Garwood, Cleveland	1644	1949	Cecelia Winandy, Chicago	1840
1928	Mrs. Emma Jaeger, Toledo, Ohio	1713	1950	Marion Ladewig, Grand Rapids, Mich.	1796
1929	Mrs. Emma Jaeger, Toledo, Ohio	1700	1951	LaVerne Haverley, Los Angeles	1788
1930	Mrs. Selva Twyford, Chicago	1727	1952	Virginia Turner, Gardena, Calif.	1854
1931	Mrs. Myrtle Schulte, St. Louis	1742	1953	Doris Knechtges, Detroit	1886
1932	Marie Warmbier, Chicago	1807	1954	Anne Johnson, Hazleton, Pa.	1880
1933	Mrs. Sally Twyford, Aurora, Ill.	1765	1955	Marion Ladewig, Grand Rapids, Mich.	1890
1934	Mrs. Esther Ryan, Milwaukee	1763	1956	Doris Knechtges, Detroit	1867
1935	Marie Warmbier, Chicago	1911	1957	Anita Cantaline, Detroit	1859
1936	Mrs. Ella Burmeister, Madison, Wis.	1683	1958	Mae Plogman, Chicago	1828

DUCK PINS

Source: A. L. Ebersole, Executive Secretary, National Duck Pin Bowling Congress.

WORLD RECORDS

MEN

Type of Record	Holder and home city	Score	Year
Game, singles	Eddie Funaro, New Haven, Conn.	239	1941
3-game set, singles	Arthur Lemke, Lowell, Mass.	542	1943
Game, doubles	Truman Cowart-Billy Allen, Atlanta, Ga.	360	1954
3-game set, doubles	Mike Avon-Paul Jarmon, Washington, D. C.	929	1952
Game, team	Winchester-Packard, Washington, D. C.	797	1948
3-game set, team	National Premium Beer, Baltimore	2135	1955

WOMEN

Game, singles	Vivian Walsh, Washington, D. C.	232	1954
3-game set, singles	Minerva Weisenborn, Baltimore	471	1953
Game, doubles	Hazel Wells-Ruby Hovanic, Bridgeport, Conn.	338	1949
3-game set, doubles	Kay Foley-Terry St. Pierre, Fall River, Mass.	826	1959
Game, team	Fulford's Colony Radio-TV, Washington, D. C.	749	1959
3-game set, team	Star Laundry, Norwalk, Conn.	1965	1951

National Duck Pin Bowling Congress Tournament Champions

SINGLES

Year		Score	Year		Score
1928	Albert Fischer, Washington, D. C.	403	1943-45	No tournaments.	
1929	Howard Campbell, Washington, D. C., and Jack Whalen, Washington, D. C.	430	1946	Charles Kebart, New Haven, Conn.	471
1930	Jack Otto, Torrington, Conn.	432	1947	Winnie Guerke, Baltimore	445
1931	Jack Whalen, Washington, D. C.	435	1948	Mike Dziadik, Derby, Conn.	466
1932	William Arnold, Annapolis, Md.	428	1949	John Catino, Stamford, Conn.	480
1933	Howard Furlong, Hartford, Conn.	440	1950	Hal Tucker, Baltimore	487
1934	Nick Tronsky, Willimantic, Conn.	453	1951	Steve Witowski, Cromwell, Conn., and Tom Stirling, New Haven, Conn.	457
1935	John Bianchi, New Haven, Conn.	458	1952	Frank Hanley, Shelton, Conn.	452
1936	Carl Frisk, New Britain, Conn.	445	1953	Al Rush, Baltimore	457
1937	William E. Powell, Roanoke, Va.	439	1954	Vince Della, Baltimore	443
1938	Astor Clarke, Washington, D. C., and Bob Liberto, Baltimore	448	1955	Walter Surowiecki, Meriden, Conn., and James Parker, Attleboro, Mass.	445
1939	Nick Tronsky, Willimantic, Conn.	447	1956	Al Burrell, Atlanta, Ga.	430
1940	Eddie Johnson, New Haven, Conn.	482	1957	Pat Crescenzi, Washington, D. C.	441
1941	Julian Easterday, Annapolis, Md.	459	1958	Francis Toolin, Fall River, Mass.	456
1942	Bill Krauss, Roslyn, Va.	456			

ATHLETES OF THE YEAR

The Associated Press annually polls outstanding sportswriters and broadcasters throughout the nation to select the outstanding male and female athletes of the year.

MALE			FEMALE		
Year	Athlete	Sport	Year	Athlete	Sport
1931	Pepper Martin	Baseball	1931	Helene Madison	Swimming
1932	Gene Sarazen	Golf	1932	Mildred (Babe) Didrikson	Track and field
1933	Carl Hubbell	Baseball	1933	Helen Jacobs	Tennis
1934	Dizzy Dean	Baseball	1934	Virginia Van Wie	Golf
1935	Joe Louis	Boxing	1935	Helen Wills Moody	Tennis
1936	Jesse Owens	Track and field	1936	Helen Stephens	Track
1937	Don Budge	Tennis	1937	Katherine Rawls	Swimming
1938	Don Budge	Tennis	1938	Patty Berg	Golf
1939	Nile Kinnick	Football	1939	Alice Marble	Tennis
1940	Tommy Harmon	Football	1940	Alice Marble	Tennis
1941	Joe DiMaggio	Baseball	1941	Betty Hicks Newell	Golf
1942	Frank Sinkwich	Football	1942	Gloria Callen	Swimming
1943	Gunder Hagg	Track	1943	Patty Berg	Golf
1944	Byron Nelson	Golf	1944	Ann Curtis	Swimming
1945	Byron Nelson	Golf	1945	Mildred (Babe) Didrikson Zaharias	Golf
1946	Glenn Davis	Football	1946	Mildred (Babe) Didrikson Zaharias	Golf
1947	Johnny Lujack	Football	1947	Mildred (Babe) Didrikson Zaharias	Golf
1948	Lou Boudreau	Baseball	1948	Fanny Blankers-Koen	Track
1949	Leon Hart	Football	1949	Marlene Bauer	Golf
1950	Jim Konstanty	Baseball	1950	Mildred (Babe) Didrikson Zaharias	Golf
1951	Dick Kazmaier	Football	1951	Maureen Connolly	Tennis
1952	Bob Mathias	Track and field	1952	Maureen Connolly	Tennis
1953	Ben Hogan	Golf	1953	Maureen Connolly	Tennis
1954	Willie Mays	Baseball	1954	Mildred (Babe) Didrikson Zaharias	Golf
1955	Howard (Hopalong) Cassidy	Football	1955	Patty Berg	Golf
1956	Mickey Mantle	Baseball	1956	Patricia McCormick	Diving
1957	Ted Williams	Baseball	1957	Althea Gibson	Tennis
1958	Herb Elliott	Track	1958	Althea Gibson	Tennis

SULLIVAN AWARD WINNERS

The James E. Sullivan Memorial Award is given annually to the amateur athlete voted by sports leaders as having done the most to advance sportsmanship.

Year	Athlete	Sport
1930	Robert T. Jones, Jr.	Golf
1931	Bernard E. Berlinger	Track and field
1932	James A. Bausch	Track and field
1933	Glenn Cunningham	Track
1934	William R. Bonthron	Track
1935	W. Lawson Little, Jr.	Golf
1936	Glenn Morris	Track and field
1937	J. Donald Budge	Tennis
1938	Donald R. Lash	Track
1939	Joseph W. Burk	Rowing
1940	J. Gregory Rice	Track
1941	Leslie MacMitchell	Track
1942	Cornelius Warmerdam	Pole vaulting
1943	Gilbert L. Dodds	Track
1944	Ann Curtis	Swimming
1945	Felix (Doc) Blanchard	Football
1946	Y. Arnold Tucker	Football
1947	John B. Kelly, Jr.	Rowing
1948	Robert B. Mathias	Track and field
1949	Richard T. Button	Figure skating
1950	Fred Wilt	Track
1951	Robert E. Richards	Track and field
1952	Horace Ashenfelter	Track
1953	Major Sammy Lee	Diving
1954	Malvin Whitfield	Track
1955	Harrison Dillard	Track
1956	Patricia McCormick	Diving
1957	Bobby Morrow	Track
1958	Glenn Davis	Track

HICKOK AWARD WINNERS

The richest award in sports is the \$10,000 S. Rae Hickok Belt, which annually goes to the professional athlete of the year, as selected in a poll of sportswriters and sportscasters throughout the country.

1950	Phil Rizzuto	Baseball
1951	Allie Reynolds	Baseball
1952	Rocky Marciano	Boxing
1953	Ben Hogan	Golf
1954	Willie Mays	Baseball
1955	Otto Graham	Football
1956	Mickey Mantle	Baseball
1957	Carmen Basilio	Boxing
1958	Bob Turley	Baseball

TOP ATHLETES OF A HALF-CENTURY

In 1950 The Associated Press polled the nation's sports experts on the "greats" in various fields during the past half-century. The list of winners:

Male athlete—Jim Thorpe.	1
Female athlete—Mildred D. Zaharias.	2
Baseball player—Babe Ruth.	3
Football player—Jim Thorpe.	4
Fighter—Jack Dempsey.	5
Basketball player—George Mikan.	6
Track performer—Jesse Owens.	7
Golfer—Bobby Jones.	8
Tennis player—Bill Tilden.	9
Swimmer—Johnny Weissmuller.	10
Race horse—Man o' War.	11

BASKETBALL

BASKETBALL may be unique in sports. It is one game concerning which it is safe to state when, where and how it originated. In the winter of 1891-92, Dr. James Naismith, an instructor in the Y.M.C.A. Training College (now Springfield College) at Springfield, Mass., deliberately invented the game of basketball in order to provide indoor exercise and competition for the students between the closing of the football season and the opening of the baseball season. He affixed peach baskets overhead on the walls at opposite ends of the gymnasium and, with an association (soccer) football, organized teams to play his new game in which the purpose was to toss the ball into one basket and prevent, as far as possible, the opponents from tossing the ball into the other basket. Fun-

damentally, the game is the same today, though there have been some improvements in equipment and many changes in the rules.

Because Dr. Naismith had eighteen available players when he invented the game, the first rule was: "There shall be nine players on each side." Later the number of players became optional, depending upon the size of the available court, but the five-player standard was adopted when the game spread over the country. United States soldiers introduced the game in Europe in World War I and, being taken up by foreign nations, it soon became a world-wide sport. An odd point is that, though it is still chiefly an indoor game in the United States, in other countries it flourishes almost entirely outdoors.

National Collegiate A. A. Champions

1939—Oregon	1949—Kentucky
1940—Indiana	1950—C.C.N.Y.
1941—Wisconsin	1951—Kentucky
1942—Stanford	1952—Kansas
1943—Wyoming	1953—Indiana
1944—Utah	1954—La Salle
1945—Oklahoma A & M	1955—San Francisco
1946—Oklahoma A & M	1956—San Francisco
1947—Holy Cross	1957—North Carolina
1948—Kentucky	1958—Kentucky

National Invitation Champions

(Madison Square Garden Tourney)

1938—Temple	1948—St. Louis
1939—Long Island U.	1949—San Francisco
1940—Colorado	1950—C.C.N.Y.
1941—Long Island U.	1951—Brigham Young
1942—West Virginia	1952—La Salle (Phila.)
1943—St. John's (Bklyn.)	1953—Seton Hall
1944—St. John's (Bklyn.)	1954—Holy Cross
1945—DePaul	1955—Duquesne
1946—Kentucky	1956—Louisville
1947—Utah	1957—Bradley
	1958—Xavier (Cincinnati)

National A. A. U. Champions

1897—23d St. Y.M.C.A., New York
 1909-1900—Knickerbocker A. C., New York
 1901—Ravenswood Y.M.C.A., Chicago
 1904—Buffalo (N. Y.) Y.M.C.A.
 1910—Portage, Wis. National Guard
 1913-14—Cornell (Armour Playground), Chicago
 1915—San Francisco Olympic Club
 1916—University of Utah
 1917—Illinois A. C.
 1919—Los Angeles A. C.
 1920—New York University
 1921—Kansas City A. C.
 1922—Lowe and Campbell, Kansas City
 1923—Kansas City A. C.
 1924—Butler University
 1925—Washburn College
 1926-27—Hillyards, St. Joseph, Mo.
 1928-29—Cook Paint Co., Kansas City
 1930-32—Henry Clothiers, Wichita, Kan.

1933-34—Diamond DX Oilers, Tulsa, Okla.
 1935—So. Kansas Stage Lines, Kansas City
 1936—Globe Refiners, McPherson, Kan.
 1937—Denver (Colo.) Safeways
 1938—Healey Motors, Kansas City
 1939—Denver (Colo.) Nuggets
 1940—Phillips Oilers, Bartlesville, Okla.
 1941—20th Century-Fox, Hollywood, Calif.
 1942—American Legion, Denver, Colo.
 1943-48—Phillips Oilers, Bartlesville, Okla.
 1949—Oakland (Calif.) Bittners
 1950—Phillips Oilers, Bartlesville, Okla.
 1951—Stewart Chevrolet, San Francisco
 1952-54—Peoria (Ill.) Cats
 1955—Phillips Oilers, Bartlesville, Okla.
 1956—Buchan Bakers, Seattle
 1957—U. S. Air Force
 1958—Peoria (Ill.) Cats

Professional Champions

The National Basketball Association (N.B.A.) was created in 1949 by a merger of the National Basketball League and the Basketball Association of America. Champions follow:

National League

1938—Goodyears	1944—Fort Wayne
1939—Firestones	1945—Fort Wayne
1940—Firestones	1946—Rochester
1941—Oshkosh	1947—Chicago
1942—Oshkosh	1948—Minneapolis
1943—Fort Wayne	1949—Anderson

Association of America

1947—Philadelphia	1949—Minneapolis
1948—Baltimore	

National Association (NBA)

1950—Minneapolis	1955—Syracuse
1951—Rochester	1956—Philadelphia
1952—Minneapolis	1957—Boston
1953—Minneapolis	1958—St. Louis
1954—Minneapolis	

ROWING

ROWING goes back so far in history that there is no possibility of tracing it to any particular aboriginal source. The oldest rowing race still on the calendar is the "Doggett's Coat and Badge" contest among professional watermen of the Thames (England) that began in 1715. The first Oxford-Cambridge race was held at Henley in 1829. Competitive rowing in the United States began with matches between boats rowed by professional oarsmen of the New York water front. They were oarsmen who rowed the small boats that plied as ferries from Manhattan Island to Brooklyn and return, or who rowed salesmen down the harbor to meet ships arriving from Europe. Since the first salesman to meet an incoming ship had some advantage over his rivals, there was keen competition in the bidding for fast boats and the best oarsmen. This gave rise to match races for a purse, or a side bet on many occasions. The first of such races was held in June, 1811, in four-oared gigs.

Amateur boat clubs sprang up in the United States between 1820 and 1830 and

seven students of Yale joined together to purchase a four-oared lap-streak gig in 1843. The first Harvard-Yale race was held Aug. 3, 1852, on Lake Winnepesaukee, N. H. The first time an American college crew went abroad was in 1869 when Harvard challenged Oxford and was defeated on the Thames. There were early college rowing races on Lake Quinsigamond, near Worcester, Mass., and on Saratoga Lake, N. Y., but the Intercollegiate Rowing Association, in 1895, settled on the Hudson, at Poughkeepsie, as the setting for the annual "Poughkeepsie Regatta." In 1950 the I.R.A. shifted its classic to Marietta, Ohio, and in 1952 it was moved to Syracuse, N. Y. The National Association of Amateur Oarsmen, organized in 1872, has conducted annual championship regattas since that time. The first rowing races were held with lap-streak gigs but shells came into general favor about a century ago. The outrigger was invented in 1830 by Clasper, an Englishman. Yale used the sliding seat in 1870.

Rowing Statistics

Source: From *American Rowing*, Copyright by Robert F. Kelley; courtesy of G. P. Putnam's Sons.

Yale-Harvard Varsity Race Record

Rowed at Centre Harbor, N. H., in 1852; Springfield, Mass., in 1855, 1872-73, 1876-77; Worcester, Mass., 1859 to 1870; Saratoga Lake, N. Y., 1874-75; New London, Conn., 1878, 1895, 1898-99; 1918, 1919 to 1941, and since 1947; triangular race at Poughkeepsie, N. Y., in 1897 with Cornell victor in 20:34; Derby, Conn., in 1918, 1942, and Boston, Mass., in 1946. Course was 2 miles in 1852; 3 miles from 1855 to 1875, and 4 miles thereafter.

Year	Winner	Time	Year	Winner	Time	Year	Winner	Time
1852	Harvard	1	1892	Yale	20:48	1925	Yale	20:26
1855	Harvard	22:00	1893	Yale	25:01½	1926	Yale	20:14%
1859	Harvard	19:18	1894	Yale	23:45½	1927	Harvard	22:35½
1860	Harvard	18:53	1895	Yale	21:30	1928	Yale	20:21%
1864	Yale	19:01	1897	Yale	20:44	1929	Yale	21:20
1865	Yale	18:42½	1898	Yale	24:02	1930	Yale	20:09%
1866	Harvard	18:43%	1899	Harvard	20:52½	1931	Harvard	22:21
1867	Harvard	18:12%	1900	Yale	21:12½	1932	Harvard	21:29
1868	Harvard	17:48½	1901	Yale	23:37	1933	Harvard	22:46%
1869	Harvard	18:02	1902	Yale	20:20	1934	Yale	19:51%
1870	Harvard	20:30 ¹	1903	Yale	20:19%	1935	Yale	20:19
1872	Harvard	16:57	1904	Yale	21:40½	1936	Harvard	20:19
1873	Yale	16:59	1905	Yale	22:33½	1937	Harvard	20:02
1874 ²	Harvard	16:56	1906	Harvard	23:02	1938	Harvard	20:20
1875	Harvard	17:05	1907	Yale	21:10	1939	Harvard	20:48%
1876	Yale	22:02	1908 ³	Harvard	24:10	1940	Harvard	21:38
1877	Harvard	24:36	1909	Harvard	21:50	1941	Harvard	20:40
1878	Harvard	20:44%	1910	Harvard	20:46½	1942 ⁴	Harvard	10:09%
1879	Harvard	22:15	1911	Harvard	22:44	1946 ⁵	Harvard	9:18
1880	Yale	24:27	1912	Harvard	21:43½	1947	Harvard	20:40
1881	Yale	22:13	1913	Harvard	21:42	1948 ⁶	Harvard	19:21%
1882	Harvard	20:47½	1914	Yale	21:16	1949 ⁷	Yale	19:52½
1883	Harvard	25:46½	1915	Yale	20:52	1950	Harvard	21:36%
1884	Yale	20:31	1916	Harvard	20:02	1951	Harvard	21:26
1885	Harvard	25:15½	1918 ⁸	Harvard	10:58	1952	Yale	22:49
1886	Yale	20:42	1919 ⁹	Yale	21:42½	1953	Harvard	20:09
1887	Yale	22:56	1920	Harvard	23:11	1954	Yale	21:58%
1888	Yale	20:10	1921	Yale	20:41	1955	Yale	20:05
1889	Yale	21:30	1922	Yale	21:53	1956	Yale	19:26
1890	Yale	21:29	1923	Yale	22:10	1957	Yale	20:35
1891	Harvard	21:23	1924	Yale	21:58½	1958	Yale	22:39

¹ Harvard won by 3 to 4 lengths. ² Yale ran into Harvard at turn and was disqualified. ³ Yale did not finish, being disabled in collision. ⁴ Yale stroke taken from shell near 3-mile mark. ⁵ Race was informal; rowed at 2 miles on Housatonic. ⁶ Course was 110 feet less than 4 miles. ⁷ Rowed at 2 miles. ⁸ Rowed at 1½ miles. ⁹ Both crews broke downstream record. ¹⁰ Both crews broke upstream record.

MOTORBOATING

SINCE the source of power—the internal combustion engine—is the same in the motorboat as it is in the automobile, the history of motorboat racing parallels that of auto racing. There was a sporting risk in driving the early power boats. As soon as they began to show a degree of dependability, there came the informal rivalries of the rivers and lakes. These led to the formal contests of speed and endurance

over marked courses under the control of the American Power Boat Association. The races were severe tests of all parts of power boats and what was learned in the annual Gold Cup competition, which started in 1904, caused a great improvement in the designing of engines and hulls. The development of the outboard motor opened up another branch of power boat competition of wide popularity.

Motorboating Statistics

Source: Bernadette M. Harper, Executive Secretary, American Power Boat Association.

GOLD CUP WINNERS

Beginning with 1922 the race for the American Power Boat Association Gold Cup was open only to displacement boats of over 25 feet in length and powered with motors of not more than 625 inches piston displacement. In 1946 the rules were liberalized to encourage the entry of smaller, less expensive craft. Boats now are required to be between 10 and 40 feet in length, with horsepower unlimited.

Year	Winner and owner	Best heat m.p.h.	Year	Winner and owner	Best heat m.p.h.
1904	STANDARD, C. C. Riette.....	23.6	1930	HOTSY TOTSY, V. Klierath.....	56.05
1904	VINGT-ET-UN II, W. Sharpe Kilmer.....	25.3	1931	HOTSY TOTSY, V. Klierath-R. Hoyt.....	54.92
1905	CHIP, J. Wainwright.....	15.9	1932	DELPHINE IV, Horace E. Dodge.....	59.21
1906	CHIP II, J. Wainwright.....	20.6	1933	EL LAGARTO, G. Reis.....	60.866
1907	CHIP II, J. Wainwright.....	20.8	1934	EL LAGARTO, G. Reis.....	58.06
1908	DIXIE II, E. J. Schroeder.....	30.9	1935	EL LAGARTO, G. Reis.....	57.582
1909	DIXIE II, E. J. Schroeder.....	32.9	1936	IMPSHI, Horace E. Dodge.....	47.120
1910	DIXIE III, F. K. Burnham.....	33.6	1937	NOTRE DAME, Herbert Mendelson.....	68.645
1911	MIT II, J. H. Hayden.....	36.1	1938	ALAGI, Theo Rossi.....	66.08
1912	P. D. Q. II, Alfred G. Miles.....	44.5	1939	MY SIN, Z. G. Simmons Jr.....	67.05
1913	ANKLE DEEP, C. S. Mankowski.....	50.49	1940	HOTSY TOTSY III, Sidney Allen.....	51.316
1914	BABY SPEED DEMON II, Paula Blackton.....	48.5	1941	MY SIN, Z. G. Simmons Jr.....	52.509
1915	MISS DETROIT, Miss Detroit P. B. A.....	49.7	1946	TEMPO VI, Guy Lombardo.....	70.878
1916	MISS MINNEAPOLIS, Miss Minneapolis B. A.....	36.8	1947	MISS PEPSI V, Dossin Brothers.....	57.02
1917	MISS DETROIT II, Gar Wood.....	56.5	1948	MISS GREAT LAKES, Albin Fallon.....	52.89
1918	MISS DETROIT III, Detroit Yachtsmen.....	52.1	1949	MY SWEETIE, E. Gregory-E. Schoenherr.....	78.645
1919	MISS DETROIT III, Gar Wood.....	56.3	1950	SLO-MO-SHUN IV, Stanley S. Sayres.....	80.892
1920	MISS AMERICA, Gar Wood.....	70.0	1951	SLO-MO-SHUN V, Stanley S. Sayres.....	91.766
1921	MISS AMERICA, Gar Wood.....	56.5	1952	SLO-MO-SHUN IV, Stanley S. Sayres.....	84.355
1922	PACKARD-CHRISRAFT, J. G. Vincent.....	40.6	1953	SLO-MO-SHUN IV, Stanley S. Sayres.....	95.268
1923	PACKARD-CHRISRAFT, J. G. Vincent.....	44.4	1954	SLO-MO-SHUN V, Stanley S. Sayres.....	99.784
1924	BABY BOOTLEGGER, Caleb Bragg.....	46.4	1955	GALE V, Joseph Schoenith.....	100.954
1925	BABY BOOTLEGGER, Caleb Bragg.....	48.4	1956	MISS THRIFTWAY, Willard Rhodes.....	100.906
1926	GREENWICH FOLLY, G. H. Townsend.....	49.22	1957	MISS THRIFTWAY, Willard Rhodes.....	104.016
1927	GREENWICH FOLLY, G. H. Townsend.....	50.99	1958	HAWAII KAI, Edgar Kaiser.....	108.734
1929	IMP, R. F. Hoyt.....	50.489			

HARMSWORTH TROPHY WINNERS

Year	Boat and Country	Speed*	Year	Boat and Country	Speed*
1903	NAPIER I, France.....	19.53	1921	MISS AMERICA II, United States.....	59.75
1904	TREFLE-A-QUATRE, England.....	26.63	1926	MISS AMERICA V, United States.....	61.118
1905	NAPIER II, England.....	26.03	1928	MISS AMERICA VII, United States.....	59.325
1906	YARROW-NAPIER, England.....	15.48	1929	MISS AMERICA VIII, United States.....	75.287
1907	DIXIE I, United States.....	31.78	1930	MISS AMERICA IX, United States.....	77.233
1908	DIXIE II, United States.....	31.347	1931	MISS AMERICA VIII, United States.....	85.861
1910	DIXIE III, United States.....	36.04	1932	MISS AMERICA X, United States.....	78.489
1911	DIXIE IV, United States.....	40.28	1933	MISS AMERICA X, United States.....	86.939
1912	MAPLE LEAF IV, England.....	43.18	1949	SKIP-A-LONG, United States.....	94.285
1913	MAPLE LEAF IV, England.....	57.45	1950	SLO-MO-SHUN IV, United States.....	100.680
1920	MISS AMERICA I, United States.....	61.51	1956	SHANTY I, United States.....	94.772

* In statute miles per hour.

† First of hydroplanes to win, predecessors being all displacement craft.

YACHTING

JASON sailed in search of the Golden Fleece. Cleopatra (according to Shakespeare) had a royal barge with purple sails. Columbus had three sailing ships when he crossed the Atlantic westward in 1492. But who the first sailor was and where he launched his primitive craft nobody ever will know. The word "yacht" is of Dutch origin and the first "yacht race" of record in the English language was a sailing contest from Greenwich to Gravesend and return in 1662 between a Dutch yacht designed and, at some part of the race, sailed by Charles II of England. The royal yacht won the contest.

The first yacht club was organized at Cork, Ireland, in 1720 under the name of the Cork Harbour Water Club, later changed to the Royal Cork Yacht Club. The Royal Yacht Squadron was organized

at Cowes in 1812 and the name changed to the Royal Yacht Club in 1820. The New York Yacht Club was organized aboard the Stevens schooner "Gimcrack" on July 30, 1844, and a clubhouse erected at Elysian Fields, Hoboken, N. J., the following year.

From that time until the Civil War races were held over courses starting from the water off the yacht club promontory. One course was to the Sandy Hook Lightship and return.

In 1850 the celebrated "America" was built by a group of New York yachtsmen and sent abroad to compete at Cowes. In a race around the Isle of Wight, with a special cup as a prize, the "America" defeated fourteen English boats and brought back the trophy that has been raced for as "The America's Cup" in many international yacht races since that time.

AMERICA'S CUP RECORD

First race in 1851 around Isle of Wight, Cowes, England. First defense and all others through 1920 held 30 miles off New York Bay. Races from 1930 through 1937 held 30 miles off Newport, R. I.

Conducted as one race only in 1851 and 1870; best four-of-seven basis, 1871; best two-of-three, 1876-1887; best three-of-five, 1893-1901; best four-of-seven, 1930-1937. Figures in parentheses indicate number of races won.

Year	Winner and owner	Losers and owner
1851	AMERICA (1), John C. Stevens, U. S.	*AURORA, T. Le Marchant, England
1870	MAGIC (1), Franklin Osgood, U. S.	†CAMBRIA, James Ashbury, England
1871	‡COLUMBIA (2), Franklin Osgood, U. S.	LIVONIA (1), James Ashbury, England
	SAPPHO (2), William P. Douglas, U. S.	
1876	MADELEINE (2), John S. Dickerson, U. S.	COUNTESS OF DUFFERIN, Chas. Gifford, Canada
1881	MISCHIEF (2), J. R. Busk, U. S.	ATALANTA, Alexander Cuthbert, Canada
1885	PURITAN (2), J. M. Forbes-Gen. Charles Paine, U. S.	GENESTA, Sir Richard Sutton, England
1886	MAYFLOWER (2), Gen. Charles Paine, U. S.	GALATEA, Lt. William Henn, England
1887	VOLUNTEER (2), Gen. Charles Paine, U. S.	THISTLE, James Bell et al, Scotland
1893	VIGILANT (3), C. Oliver Iselin et al, U. S.	VALKYRIE II, Lord Dunraven, England
1895	DEFENDER (3), C. O. Iselin-W. K. Vanderbilt-E. D. Morgan, U. S.	VALKYRIE III, Lord Dunraven-Lord Lonsdale-Lord Wolverton, England
1899	COLUMBIA (3), J. P. Morgan-C. O. Iselin, U. S.	SHAMROCK I, Sir Thomas Lipton, Ireland
1901	COLUMBIA (3), Edwin D. Morgan, U. S.	SHAMROCK II, Sir Thomas Lipton, Ireland
1903	RELIANCE (3), Cornelius Vanderbilt et al, U. S.	SHAMROCK III, Sir Thomas Lipton, Ireland
1920	RESOLUTE (3), Henry Walters et al, U. S.	SHAMROCK IV (2), Sir Thomas Lipton, Ireland
1930	ENTERPRISE (4), Harold S. Vanderbilt et al, U. S.	SHAMROCK V, Sir Thomas Lipton, Ireland
1934	RAINBOW (4), Harold S. Vanderbilt, U. S.	ENDEAVOUR (2), T. O. M. Sopwith, England
1937	RANGER (4), Harold S. Vanderbilt, U. S.	ENDEAVOUR II, T. O. M. Sopwith, England
1958	COLUMBIA (4), Henry Sears et al, U. S.	SCEPTRE, Hugh Goodson et al, England

* Fourteen British yachts started against America; Aurora finished second. † Cambria sailed against 26 U. S. yachts and finished tenth. ‡ Columbia was disabled in the third race, after winning the first two; Sappho substituted and won the fourth and fifth.

COURT TENNIS

National Champions

1892	Richard D. Sears, Boston A. A.	1930	Lord Aberdare, England
1893	Fiske Warren, Boston A. A.	1931-32	William C. Wright, Philadelphia
1894-95	B. Spalding de Gardemia, R. and T. Club	1933	James H. Van Alen, R. and T. Club
1896	Lawrence M. Stockton, Boston A. A.	1934-37	Ogden Phipps, R. and T. Club
1897	George R. Fearing, Jr., Boston A. A.	1938	James H. Van Alen, R. and T. Club
1898-99	Lawrence M. Stockton, Boston A. A.	1939	Ogden Phipps, R. and T. Club
1900	Eustace H. Miles, England	1940	James H. Van Alen, R. and T. Club
1901-04	Joshua Crane, Boston A. A.	1941	Alastair B. Martin, R. and T. Club
1905	Charles E. Sands, R. and T. Club	1942-45	No tournaments
1906-17	Jay Gould, Philadelphia R. C.	1946	Robert Grant, III, R. and T. Club
1918-19	No tournaments	1947	E. M. Beals, Jr., Boston
1920-25	Jay Gould, Philadelphia R. C.	1948-49	Ogden Phipps, Roslyn, N. Y.
1926	C. Suydam Cutting, R. and T. Club	1950-56	Alastair B. Martin, R. and T. Club
1927	George Huband, England, and Chicago R. C.	1957-58	Northrup Knox, Buffalo
1928-29	Hewitt Morgan, R. and T. Club		

SQUASH RACQUETS

National Champions

1907-08.....	John A. Miskey, Overbrook G. C.	1933.....	Beekman Pool, Harvard Club, New York
1909.....	W. L. Freeland, Germantown C. C.	1934.....	Neil J. Sullivan, Germantown C. C.
1910.....	John A. Miskey, Overbrook G. C.	1935.....	Donald Strachan, Philadelphia C. C.
1911.....	F. S. White, Germantown C. C.	1936.....	Germain G. Glidden, Harvard University
1912.....	Constantine Hutchins, Boston A. A.	1937-38.....	Germain G. Glidden, Harvard Club, New York
1913.....	Mortimer L. Newhall, Germantown C. C.	1939.....	Donald Strachan, Merion C. C.
1914.....	Constantine Hutchins, Boston T. and R. Club	1940.....	A. Willing Patterson, Philadelphia R. C.
1915-17.....	Stanley W. Pearson, Germantown C. C.	1941-42.....	Charles W. Brinton, Princeton University
1918-19.....	No tournaments	1943-45.....	No tournaments
1920.....	Charles C. Peabody, Union B. C., Boston	1946-47.....	Charles W. Brinton, Philadelphia
1921-23.....	Stanley W. Pearson, Philadelphia R. C.	1948.....	Stanley W. Pearson, Jr., Philadelphia
1924.....	Gerald Roberts, Bath Club, London	1949.....	Hunter H. Lott, Jr., Merion C. C.
1925.....	W. Palmer Dixon, Harvard University	1950-51.....	Edward Hahn, Detroit
1926.....	W. Palmer Dixon, R. and T. Club, N. Y.	1952.....	Harry Conlon, Buffalo, N. Y.
1927.....	Myles P. Baker, Boston A. A.	1953.....	Ernie Howard, Toronto
1928.....	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.	1954.....	G. Diehl Mateer, Jr., Philadelphia
1929.....	J. Lawrence Pool, Harvard Club, New York	1955.....	Henri Salaun, Boston
1930.....	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.	1956.....	G. Diehl Mateer, Jr., Philadelphia
1931.....	J. Lawrence Pool, Harvard Club, New York	1957-58.....	Henri Salaun, Boston
1932.....	Beekman Pool, Harvard University		

SQUASH TENNIS

National Champions

Year	Winner and Club	Year	Winner and Club
1911-12.....	Alfred Stillman, Harvard	1938.....	Harry F. Wolf, Montclair
1913.....	George Whitney, Harvard	1939-40.....	Harry F. Wolf, New York A. C.
1914.....	Alfred Stillman, Harvard	1941.....	Joseph J. Lordi, New York A. C.
1915-17.....	Eric S. Winston, Harvard	1942.....	H. Robert Reeve, Bayside T. C.
1918.....	Fillmore Van S. Hyde, Harvard	1943-45.....	No tournaments
1919.....	John W. Appel, Jr., Harvard	1946.....	Frank R. Hanson, Columbia
1920.....	Auguste J. Cordier, Yale	1947.....	Frederick B. Ryan, Jr., Yale
1921.....	Fillmore Van S. Hyde, Harvard	1948-49.....	H. Robert Reeve, Bayside T. C.
1922.....	Thomas R. Coward, Yale	1950.....	H. Robert Reeve, Nassau C. C.
1923.....	R. Earl Fink, Crescent	1951.....	J. F. P. Sullivan, Yale
1924.....	Fillmore van S. Hyde, Harvard	1952.....	H. Robert Reeve, New York A. C.
1925.....	William Rand, Jr., Harvard	1953.....	Howard J. Rose, Princeton Club
1926.....	Fillmore van S. Hyde, Harvard	1954-55.....	H. Robert Reeve, Bayside T. C.
1927-29.....	Rowland B. Haines, Columbia	1956.....	H. Robert Reeve, New York A. C.
1930-37.....	Harry F. Wolf, New York A. C.	1957-58.....	J. Lenox Porter, New York

RACQUETS

National Champions

1890	B. Spalding de Garmendia, N. Y. Racquet Court	1918-19	No tournaments
1891	B. Spalding de Garmendia, R. and T. Club	1920-22	C. C. Pell, R. and T. Club and Tuxedo
1892	J. S. Tooker, R. and T. Club, Boston A. A.	1923	S. G. Mortimer, R. and T. Club and Tuxedo
1893-94	B. Spalding de Garmendia, R. and T. Club	1924-25	C. C. Pell, R. and T. Club and Tuxedo
1895	J. S. Tooker, R. and T. Club, Boston A. A.	1926	S. G. Mortimer, R. and T. Club and Tuxedo
1896-97	B. Spalding de Garmendia, R. and T. Club	1927-28	C. C. Pell, R. and T. Club and Tuxedo
1898	F. F. Rolland, Canada	1929	H. D. Sheldon, R. and T. Club
1899	Quincy A. Shaw, Jr., Boston A. A.	1930	S. G. Mortimer, R. and T. Club and Tuxedo
1900	Eustace H. Miles, England	1931-33	C. C. Pell, R. and T. Club and Tuxedo
1901	Quincy A. Shaw, Jr., Boston A. A.	1934	E. M. Edwards, Philadelphia R. C.
1902	Clarence H. Mackay, R. and T. Club	1935	H. D. Sheldon, R. and T. Club
1903	Payne Whitney, R. and T. Club	1936	E. M. Edwards, Philadelphia R. C.
1904	George H. Brooke, Philadelphia R. C.	1937-39	Robert Grant, III, R. and T. Club
1905	Lawrence Waterbury, R. and T. Club	1940	Warren Ingersoll, III, Philadelphia R. C.
1906	Percy D. Haughton, R. and T. Club	1941	Robert Grant, III, R. and T. Club
1907	Reginald Fincke, R. and T. Club	1942-45	No tournaments
1908	Quincy A. Shaw, Jr., Boston T. and R. Club	1946	Robert Grant, III, R. and T. Club
1909	H. F. McCormick, University Club, Chicago	1947	J. Richards Leonard, R. and T. Club
1910	Quincy A. Shaw, Jr., Boston T. and R. Club	1948-51	Robert Grant, III, R. and T. Club
1911-12	Reginald Fincke, R. and T. Club	1952	S. W. Peersaa, Jr., Philadelphia R. C.
1913-14	Lawrence Waterbury, R. and T. Club	1953	Robert Grant, III, R. and T. Club
1915	C. C. Pell, R. and T. Club and Tuxedo	1954-56	Geoffrey W. T. Atkins, Chicago
1916	S. G. Mortimer, R. and T. Club and Tuxedo	1957	Charles Pearson, Philadelphia
1917	C. C. Pell, R. and T. Club and Tuxedo	1958	Clarence C. Pell, Jr., New York

BADMINTON

National Champions

MEN'S SINGLES

- 1937-38 Walter Kramer, Detroit
 1939-42 David Freeman, Pasadena, Calif.
 1943-46 No competition.
 1947-48 David Freeman, Pasadena, Calif.
 1949-50 Marten Mendez, San Diego, Calif.
 1951 Joseph Alston, San Diego, Calif.
 1952 Marten Mendez, San Diego, Calif.
 1953 David Freeman, Pasadena, Calif.
 1954 Eddy Choong, Malaya
 1955 Joseph Alston, So. Pasadena, Calif.
 1956-57 Finn Kobbero, Denmark
 1958 Jim Poole, San Diego, Calif.

MEN'S DOUBLES

- 1937 Chester Goss-Donald Eversoll, Los Angeles
 1938-39 Hamilton Law-Richard Yeager, Seattle
 1940-42 Chester Goss-David Freeman, Pasadena, Calif.
 1943-46 No competition.
 1947 David Freeman-Webster Kimball, Pasadena, Calif.
 1948 David Freeman, Pasadena, Calif.-Wynn Rogers, Arcadia, Calif.
 1949-50 Barney McCay, Pasadena, Calif.-Wynn Rogers, Arcadia, Calif.
 1951-53 Joseph Alston, San Diego, Calif.-Wynn Rogers, Arcadia, Calif.
 1954 Ooi Teik Hock-Ong Poh Lim, Malaya
 1955 Joseph Alston, So. Pasadena, Calif.-Wynn Rogers, Arcadia, Calif.
 1956-58 Finn Kobbero-Jørgen Hansen, Denmark

WOMEN'S SINGLES

- 1937-38 Mrs. Del Barkhuff, Seattle
 1939 Mary Whittemore, Boston
 1940 Evelyn Boldrick, San Diego, Calif.
 1941 Thelma Kingsbury, Oakland, Calif.
 1942 Evelyn Boldrick, San Diego, Calif.
 1943-46 No competition.
 1947-53 Ethel Marshall, Buffalo, N. Y.
 1954 Judith Devlin, Baltimore
 1955 Margaret Varner, Boston
 1956-58 Judith Devlin, Baltimore

WOMEN'S DOUBLES

- 1937 Mrs. Del Barkhuff-Zoe Smith, Seattle
 1938 Mrs. Roy Bergman-Helen Gibson, Westport, Conn.
 1939 Mrs. Del Barkhuff-Zoe Smith, Seattle
 1940 Elizabeth Anselm-Helen Zabriskie, Oakland, Calif.
 1941 Thelma Kingsbury-Janet Wright, Oakland, Calif.
 1942 Evelyn Boldrick, San Diego, Calif.-Janet Wright, Oakland, Calif.
 1943-46 No competition.
 1947-50 Thelma K. Scovill-Janet Wright, San Francisco
 1951 Dottie Hann, Manhattan Beach, Calif.-Loma Smith, Pasadena, Calif.
 1952 Ethel Marshall-Beatrice Massman, Buffalo, N. Y.
 1953-55 Judith Devlin-Susan Devlin, Baltimore
 1956 Ethel Marshall-Beatrice Massman, Buffalo, N. Y.
 1957-58 Judith Devlin-Susan Devlin, Baltimore

TABLE TENNIS

National Champions

MEN'S SINGLES

- 1931 Marcus Schussheim, New York
 1932 Coleman Clark, Chicago*
 Marcus Schussheim, New York*
 1933 James M. Jacobson, New Rochelle, N. Y.*
 Sidney Heitner, New York*
 1934 James McClure, Indianapolis*
 Sol Schiff, New York*
 1935 A. Berenbaum, New York
 1936 Viktor Barna, Hungary†
 Sol Schiff, New York†
 1937 Laszlo Bellak, Hungary†
 1938 Laszlo Bellak, Hungary
 1939 James McClure, Indianapolis
 1940-42 Louis Pagliaro, New York
 1943 William Holzrichter, Chicago
 1944 John Somael, New York
 1945-49 Richard Miles, New York
 1950 John Leach, England
 1951 Richard Miles, New York
 1952 Louis Pagliaro, New York
 1953-55 Richard Miles, New York
 1956 Erwin Klein, Los Angeles
 1957 Bernard Bukiet, Cleveland
 1958 Martin Reisman, New York

MEN'S DOUBLES

- 1932 James M. Jacobson-George T. Bacon, Jr., New Rochelle.
 1933 Paul Pearson-Edwin Lewis, Chicago*
 Ralph Langsam-Lloyd Waterson, New York*

- 1934 Samuel Silberman-Alan Lobell, New York*
 Sol Schiff, N. Y.-Manny Moskowitz, Rutherford, N. J.*
 1935 A. Berenbaum, N. Y.-Edward Silverglade, Trenton, N. J.
 1936 James McClure, Indianapolis-Robert Blattner, St. Louis†
 James M. Jacobson, New Rochelle, N. Y.-Sol Schiff, New York†
 1937 Laszlo Bellak, Hungary-Standa Kolar, Czechoslovakia†
 1938 Sol Schiff, New York-James McClure, Indianapolis
 1939 Laszlo Bellak-Tibor Hazi, Hungary
 1940 Sol Schiff, New York-James McClure, Indianapolis
 1941-42 Edward Pinner-Cy Sussman, New York
 1943 Laszlo Bellak, New York-Tibor Hazi, Philadelphia
 1944 William Holzrichter, Chicago-Laszlo Bellak, N. Y.
 1945 John Somael, New York-Max Hersh, Detroit
 1946 Edward Pinner-Cy Sussman, New York
 1947 Douglas Cartland-Arnold Fethrod, New York
 1948 Tibor Hazi, Washington-John Somael, New York
 1949 Martin Reisman-Sol Schiff, New York
 1950 John Leach-Jack Carrington, England
 1951 Martin Reisman, N. Y.-Wm. Holzrichter, Chicago
 1952 Richard Miles-Sol Schiff, New York
 1953 Richard Miles-John Somael, New York
 1954 Bernard Bukiet, Chicago-Tibor Hazi, Washington
 1955-56 R. Bergmann, England-E. Klein, Los Angeles
 1957 Wm. Holzrichter, Geneva, Ill.-Norbert Van Dewalle, Chicago
 1958 Richard Miles-Martin Reisman, New York

* Co-champions. At the time there were two national associations, each with its own champion. † Open championships. ‡ Closed championships.

POLO

POLO originated "somewhere east of Suez" but exactly where never has been determined. There is pictorial proof that it was played many centuries ago in Persia, Japan, China and Tibet, but it reached England by way of a border tribe in India known as the Manipuri. British army officers in India, about 1860, found the Manipuri playing polo and learned the game from them. The fact that the Manipuri used small native horses—they had no others—was the reason for the early height limit (14 hands) on polo mounts, from which arose the custom of calling them "polo ponies," which was abandoned in 1919.

In 1869 some officers of the 10th Hussars, returning from India, introduced the game in England and informal games were played with as many as eight players on a side. Formal competition at Hurlingham, the great shrine of the game, began in 1876 with five players on a side, which

number was cut to four in 1882. In 1884 an outstanding English player by the name of John Watson invented the backhand stroke and much improved the tactics of the game.

James Gordon Bennett, Jr., noted American newspaper owner and editor, saw polo at Hurlingham in 1875, brought the implements to this country, had a carload of cow ponies sent up from Texas and promoted a game that was played indoors at the Dickel Riding Academy at Fifth Avenue and 39th Street, New York City, in 1876. Polo moved outdoors to the Jerome Park race course and other suitable places soon after. One field on which it was played, at Fifth Avenue and 110th Street, was taken over by the New York baseball team in the National League and that is why the field on which the "Giants" played ball, although there had been two changes in site, still is called "the Polo Grounds."

INTERNATIONAL MATCHES

Great Britain vs. United States

Year	Winner	Site
1886	Great Britain.....	Newport, R. I.
1902	Great Britain.....	Hurlingham
1909	United States.....	Hurlingham
1911	United States.....	Meadow Brook
1913	United States.....	Meadow Brook
1914	Great Britain.....	Meadow Brook
1921	United States.....	Hurlingham
1924	United States.....	Meadow Brook
1927	United States.....	Meadow Brook

Year	Winner	Site
1930	United States.....	Meadow Brook
1936	United States.....	Hurlingham
1939	United States.....	Meadow Brook

Argentina vs. United States

Year	Winner	Site
1928	United States.....	Meadow Brook
1932	United States.....	Buenos Aires
1936	Argentina.....	Meadow Brook
1950	Argentina.....	Buenos Aires

NATIONAL OPEN CHAMPIONS

Not held from 1905 to 1909, inclusive; 1911, 1915, 1917, 1918, and from 1942 to 1945, inclusive.

1904—WANDERERS

- 1—C. R. Snowden
 - 2—J. E. Cowdin
 - 3—J. M. Waterbury, Jr.
- Back—L. Waterbury

1910—RANELAGH

- 1—R. N. Grenfell
 - 2—F. Grenfell
 - 3—Earl of Rocksavage
- Back—F. A. Gill

1912—COOPERSTOWN

- 1—F. S. von Stade
 - 2—C. C. Rumsey
 - 3—C. P. Beadleston
- Back—M. Stevenson

1913—COOPERSTOWN

- 1—F. S. von Stade
 - 2—C. C. Rumsey
 - 3—C. P. Beadleston
- Back—M. Stevenson

1914—MEADOW BROOK

- 1—N. L. Tilney
 - 2—J. W. Webb
 - 3—W. G. Loew
- Back—H. Phipps

1916—MEADOW BROOK

- 1—H. Phipps
 - 2—C. C. Rumsey
 - 3—W. G. Loew
- Back—D. Milburn

1919—MEADOW BROOK

- 1—F. H. Prince, Jr.
 - 2—J. W. Webb
 - 3—F. S. von Stade
- Back—D. Milburn

1920—MEADOW BROOK

- 1—F. S. von Stade
 - 2—J. W. Webb
 - 3—R. E. Strawbridge, Jr.
- Back—D. Milburn

1921—GREAT NECK

- 1—L. E. Stoddard
 - 2—R. Wanamaker, II
 - 3—J. W. Webb
- Back—R. E. Strawbridge, Jr.

1922—ARGENTINE

- 1—J. B. Miles
 - 2—J. D. Nelson
 - 3—D. B. Miles
- Back—L. L. Lacey

1923—MEADOW BROOK

- 1—R. Belmont
 - 2—T. Hitchcock, Jr.
 - 3—R. E. Strawbridge, Jr.
- Back—D. Milburn

1924—MIDWICK

- 1—E. G. Miller
 - 2—E. L. Pedley
 - 3—A. P. Perkins
- Back—C. F. Burke

1925—ORANGE COUNTY

- 1—W. A. Harriman
 - 2—J. W. Webb
 - 3—M. Stevenson
- Back—J. C. Cowdin

1926—HURRICANES

- 1—S. Sanford
 - 2—E. L. Pedley
 - 3—Capt. C. T. I. Roark
- Back—R. E. Strawbridge, Jr.

1927—SANDS POINT

- 1—W. A. Harriman
 - 2—T. Hitchcock, Jr.
 - 3—J. C. Cowdin
- Back—L. E. Stoddard

1928—MEADOW BROOK

- 1—C. V. Whitney
 - 2—W. F. C. Guest
 - 3—J. B. Miles
- Back—M. Stevenson

1929—HURRICANES

- 1—S. Sanford
 - 2—Capt. C. T. I. Roark
 - 3—J. W. Webb
- Back—R. E. Strawbridge, Jr.

1930—HURRICANES

- 1—S. Sanford
 - 2—E. L. Pedley
 - 3—Capt. C. T. I. Roark
- Back—R. E. Strawbridge, Jr.

1931—SANTA PAULA

- 1—A. Gazzotti
 - 2—José Reynal
 - 3—Juan Reynal
- Back—M. Andrada

1932—TEMPLETON

- 1—M. G. Phipps
 - 2—W. F. C. Guest
 - 3—S. B. Iglehart
- Back—R. R. Guest

National Open Polo Champions (Cont.)

1933—AURORA

- 1—S. H. Knox
2—J. P. Mills
3—E. T. Gerry
Back—E. J. Boeseke, Jr.

1934—TEMPLETON

- 1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1935—GREENTREE

- 1—G. H. Bostwick
2—T. Hitchcock, Jr.
3—G. Balding
Back—J. H. Whitney

1936—GREENTREE

- 1—G. H. Bostwick
2—G. Balding
3—T. Hitchcock, Jr.
Back—J. H. Whitney

1937—OLD WESTBURY

- 1—M. G. Phipps
2—Cecil Smith
3—S. B. Iglehart
Back—C. V. Whitney

1938—OLD WESTBURY

- 1—M. G. Phipps
2—Cecil Smith
3—S. B. Iglehart
Back—C. V. Whitney

1939—BOSTWICK FIELD

- 1—G. H. Bostwick
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—E. H. Tyrrell-Martin

1940—AKNUSTI

- 1—G. S. Smith
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—A. L. Corey, Jr.

1941—GULF STREAM

- 1—J. H. A. Phipps
2—M. G. Phipps
3—C. S. von Stade
Back—A. L. Corey, Jr.

1946—HERRADURA

- 1—Gabriel Gracida
2—Guillermo Gracida
3—Alejandro Gracida
Back—José Gracida

1947—OLD WESTBURY

- 1—P. Silvero
2—C. C. Combs
3—S. B. Iglehart
Back—G. Oliver

1948—HURRICANES

- 1—L. Sheerin
2—P. Perkins
3—Cecil Smith
Back—S. Sanford

1949—HURRICANES

- 1—L. Sheerin
2—R. Cavanaugh
3—Cecil Smith
Back—S. Sanford

1950—BOSTWICK FIELD

- 1—G. H. Bostwick
2—George Oliver
3—A. L. Corey, Jr.
Back—D. Milburn, Jr.

1951—MILWAUKEE

- 1—Pedro Silvero
2—Peter Perkins
3—George Oliver
Back—Bob Uihlein

1952—BEVERLY HILLS

- 1—Bob Fletcher
2—Tony Veen
3—Robert Skene
Back—Carlton Beal

1953—MEADOW BROOK

- 1—Henry Lewis, III
2—Philip Iglehart
3—A. L. Corey, Jr.
Back—G. H. Bostwick

1954—M. BROOK—C. C. C.

- 1—A. D. Beveridge
2—Paul Barry
3—A. L. Corey, Jr.
Back—G. H. Bostwick

1955—TRIPLE C

- 1—A. D. Beveridge
2—William Linfott
3—Paul Barry
Back—Harold Barry

1956—BRANDYWINE

- 1—Raworth Williams
2—Ray Harrington
3—Clarence Combs
Back—William Mayer

1957—DETROIT CCC

- 1—A. D. Beveridge
2—Robert Beveridge
3—George Oliver
Back—Harold Barry

1958—DALLAS A. C.

- 1—Rayworth Williams
2—William Linfott
3—Robert Skene
Back—Luis Ramos

CHESS

Source: American Chess Bulletin of New York.

World Champions

- 1851-58 Adolph Anderssen, Germany
1858-62 Paul Morphy, New Orleans, La.
1862-66 Adolph Anderssen, Germany
1866-94 William Steinitz, Austria
1894-1921 Emanuel Lasker, Germany
1921-27 José R. Capablanca, Cuba
1927-35 Alexander A. Alekhine, Russia
1935-37 Dr. Max Euwe, Netherlands
1937-46 Alexander A. Alekhine, Russia*
1948-57 Mikhail Botvinnik, Russia
1957-58 Vassily Smyslov, Russia
1958—Mikhail Botvinnik, Russia

* Alekhine, a French citizen, died while champion.

United States Champions

- 1852-62 Paul Morphy, New Orleans, La.
1871-87 George H. Mackenzie, New York

- 1887-92 Max Judd, St. Louis, Mo.
1892-94 Simon Lipschuetz, New York
1894 Jackson W. Showalter, Georgetown, Ky.
1894 Albert B. Hodges, Staten Island, N. Y.*
1894-97 Jackson W. Showalter, Georgetown, Ky.
1897-1906 Harry Nelson Pillsbury, Boston, Mass.
1906-09 Jackson W. Showalter, Georgetown, Ky.
1909-36 Frank J. Marshall, New York
1936-44 Samuel Reshevsky, New York†
1944-46 Arnold S. Denker, New York
1946 Samuel Reshevsky, Boston
1948 Herman Steiner, Los Angeles
1951 Larry Evans, New York
1954-57 Arthur Bisguier, New York
1958 Bobby Fischer, Brooklyn, N. Y.

* Retired after winning return match with Showalter.
† In 1942, Isaac I. Kashdan of New York was co-champion for a while because of a tie with Reshevsky in that year's tournament. Reshevsky won the play-off.

RODEO

Source: Gene Lamb, Editor, Rodeo Sports News, Denver, Colo.

Rodeo Cowboys' Association
All-Around Cowboy

- | | Points | | Points |
|---|--------|---|--------|
| 1947—Todd Whatley, Hugo, Okla..... | (a) | 1953—Bill Linderman, Walla Walla, Wash..... | 33,674 |
| 1948—Gerald Roberts, Strong City, Kan..... | 21,766 | 1954—Buck Rutherford, Lenapah, Okla..... | 40,404 |
| 1949—Jim Shoulders, Henryetta, Okla..... | 21,495 | 1955—Casey Tibbs, Ft. Pierre, S. D..... | 42,065 |
| 1950—Bill Linderman, Walla Walla, Wash..... | 30,715 | 1956—Jim Shoulders, Henryetta, Okla..... | 43,381 |
| 1951—Casey Tibbs, Ft. Pierre, S. D..... | 29,104 | 1957—Jim Shoulders, Henryetta, Okla..... | 33,229 |
| 1952—Harry Tompkins, Dublin, Tex..... | 30,934 | 1958—Jim Shoulders, Henryetta, Okla..... | 33,212 |

(a) No official total. Whatley scored approximately 20,000 points.

GOLF

IT MAY BE that golf originated in Holland—historians believe it did—but certainly Scotland fostered the game and is famous for it. In fact, in 1457 the Scottish Parliament, disturbed because football and golf had lured young Scots from the more soldierly exercise of archery, passed an ordinance that "futeball and golf be utterly cryit doun and nocht usit." James I and Charles I of the royal line of Stuarts were golf enthusiasts, whereby the game came to be known as "the royal and ancient game of golf."

The golf balls used in the early games were leather covered and stuffed with feathers. Clubs of all kinds were fashioned by hand to suit individual players. The great step in spreading the game came with the change from the feather ball to the gutta-percha ball about 1850, and in 1860 formal competition began with the establishment of an annual tournament for the British open championship. There are records of "golf clubs" in the United

States as far back as colonial days but no proof of actual play before John Reid and some friends laid out six holes on the Reid lawn in Yonkers, N. Y., in 1888 and played there with the golf balls and clubs brought over from Scotland by Robert Lockhart. This group then formed the St. Andrews Golf Club of Yonkers, and golf was established in this country.

However, it remained a rather sedate and almost aristocratic pastime until a 20-year-old ex-caddy, Francis Ouimet of Boston, defeated two great British professionals, Harry Vardon and Ted Ray, in the United States Open championship at Brookline, Mass., in 1913. This feat put the game and Francis Ouimet on the front pages of the newspapers and stirred a wave of enthusiasm for the sport. The greatest feat so far in golf history was that of Robert Tyre Jones, Jr. of Atlanta, Ga., in winning the British Open, the British Amateur, the U. S. Open and the U. S. Amateur titles in one year, 1930.

Golf Statistics

Source: United States Golf Association.

UNITED STATES OPEN CHAMPIONS

Year	Winner	Score	Where played	Year	Winner	Score	Where played
1895	Horace Rawlins.....	173	Newport	1926	R. T. Jones, Jr.(b).....	293	Scioto
1896	James Foulis.....	152	Shinnecock Hills	1927	Tommy Armour (a).....	301	Oakmont
1897	Joe Lloyd.....	162	Chicago	1928	Johnny Farrell (a).....	294	Olympic Fields
1898*	Fred Herd.....	328	Myopia	1929	R. T. Jones, Jr.(a,b).....	294	Winged Foot
1899	Willie Smith.....	315	Baltimore	1930	R. T. Jones, Jr.(b).....	287	Interlachen
1900	Harry Vardon.....	313	Chicago	1931	Billy Burke (a).....	292	Inverness
1901	Willie Anderson (a).....	331	Myopia	1932	Gene Sarazen.....	286	Fresh Meadow
1902	L. Auchterlonie.....	307	Garden City	1933	John Goodman (b).....	287	North Shore
1903	Willie Anderson (a).....	307	Baltusrol	1934	Olin Dutra.....	293	Merion
1904	Willie Anderson.....	303	Glen View	1935	Sam Parks, Jr.....	299	Oakmont
1905	Willie Anderson.....	314	Myopia	1936	Tony Manero.....	282	Baltusrol
1906	Alex Smith.....	295	Onwentsia	1937	Ralph Guldahl.....	281	Oakland Hills
1907	Alex Ross.....	302	Philadelphia	1938	Ralph Guldahl.....	284	Cherry Hills
1908	Fred McLeod (a).....	322	Myopia	1939	Byron Nelson (a).....	284	Philadelphia
1909	George Sargent.....	290	Englewood	1940	W. Lawson Little, Jr.(a).....	287	Canterbury
1910	Alex Smith (a).....	298	Philadelphia	1941	Craig Wood.....	284	Colonial
1911	J. J. McDermott (a).....	307	Chicago	1942-45	No tournaments†		
1912	J. J. McDermott.....	294	Buffalo	1946	Lloyd Mangrum (a).....	284	Canterbury
1913	Francis Ouimet (a,b).....	304	Brookline	1947	Lew Worsham (a).....	282	St. Louis
1914	Walter Hagen.....	290	Midlothian	1948	Ben Hogan.....	276	Riviera
1915	Jerome D. Travers (b).....	297	Baltusrol	1949	Cary Middlecoff.....	286	Medinah
1916	Charles Evans] Jr.(b).....	286	Minikahda	1950	Ben Hogan (a).....	287	Merion
1917-18	No tournaments†			1951	Ben Hogan.....	287	Oakland Hills
1919	Walter Hagen (a).....	301	Brae Burn	1952	Julius Boros.....	281	Northwood
1920	Edward Ray.....	295	Inverness	1953	Ben Hogan.....	283	Oakmont
1921	James M. Barnes.....	289	Columbia	1954	Ed Furgol.....	284	Baltusrol
1922	Gene Sarazen.....	288	Skokie	1955	Jack Fleck (a).....	287	Olympic
1923	R. T. Jones, Jr.(a,b).....	296	Inwood	1956	Cary Middlecoff.....	281	Oak Hill
1924	Cyril Walker.....	297	Oakland Hills	1957	Dick Mayer (a).....	298	Inverness
1925	W. Macfarlane (a).....	291	Worcester	1958	Tommy Bolt.....	283	Southern Hills]

(a) Winner in playoff. (b) Amateur. * In 1898 competition was extended to 72 holes. † In 1917, Jock Hutchison, with a 292, won an Open Patriotic Tournament for the benefit of the American Red Cross at Whitmarsh Valley Country Club. ‡ In 1942, Ben Hogan, with a 271, won a Hale American National Open Tournament for the benefit of the Navy Relief Society and USO at Ridgemoor Country Club.

UNITED STATES AMATEUR CHAMPIONS

Year	Winner	Year	Winner	Year	Winner
1895	Charles B. Macdonald	1915	Robert A. Gardner	1937	John Goodman
1896	H. J. Whigham	1916	Charles Evans, Jr.	1938	Willie Turnesa
1897	H. J. Whigham	1919	S. D. Herron	1939	Marvin H. Ward
1898	Findlay S. Douglas	1920	Charles Evans, Jr.	1940	R. D. Chapman
1899	H. M. Harriman	1921	Jesse P. Guilford	1941	Marvin H. Ward
1900	Walter J. Travis	1922	Jess W. Sweetser	1946	Ted Bishop
1901	Walter J. Travis	1923	Max R. Marston	1947	Robert Riegel
1902	Louis N. James	1924	R. T. Jones, Jr.	1948	Willie Turnesa
1903	Walter J. Travis	1925	R. T. Jones, Jr.	1949	Charles Coe
1904	H. Chandler Egan	1926	George von Elm	1950	Sam Urzetta
1905	H. Chandler Egan	1927	R. T. Jones, Jr.	1951	Billy Maxwell
1906	Eben M. Byers	1928	R. T. Jones, Jr.	1952	Jack Westland
1907	Jerome D. Travers	1929	H. R. Johnston	1953	Gene Littler
1908	Jerome D. Travers	1930	R. T. Jones, Jr.	1954	Arnold Palmer
1909	Robert A. Gardner	1931	Francis Ouimet	1955	Harvie Ward
1910	W. C. Fownes, Jr.	1932	C. R. Somerville	1956	Harvie Ward
1911	Harold H. Hilton	1933	G. T. Dunlap, Jr.	1957	Hillman Robbins
1912	Jerome D. Travers	1934	W. Lawson Little, Jr.	1958	Charles Coe
1913	Jerome D. Travers	1935	W. Lawson Little, Jr.		
1914	Francis Ouimet	1936	John W. Fischer		

UNITED STATES P. G. A. CHAMPIONS

Year	Winner	Year	Winner	Year	Winner
1916	Jim Barnes	1932	Olin Dutra	1947	Jim Ferrier
1919	Jim Barnes	1933	Gene Sarazen	1948	Ben Hogan
1920	Jock Hutchison	1934	Paul Runyan	1949	Sam Snead
1921	Walter Hagen	1935	Johnny Revolta	1950	Chandler Harper
1922	Gene Sarazen	1936	Denny Shute	1951	Sam Snead
1923	Gene Sarazen	1937	Denny Shute	1952	Jim Turnesa
1924	Walter Hagen	1938	Paul Runyan	1953	Walter Burkemo
1925	Walter Hagen	1939	Henry Picard	1954	Chick Harbert
1926	Walter Hagen	1940	Byron Nelson	1955	Doug Ford
1927	Walter Hagen	1941	Victor Ghezzi	1956	Jack Burke, Jr.
1928	Leo Diegel	1942	Sam Snead	1957	Lionel Hebert
1929	Leo Diegel	1944	Bob Hamilton	1958*	Dow Finsterwald 276
1930	Tommy Armour	1945	Byron Nelson		
1931	Tom Creavy	1946	Ben Hogan		

* Match play prior to 1958.

UNITED STATES WOMEN'S OPEN CHAMPIONS

1946	Patty Berg (match play).....	—	1951	Betsy Rawls.....	293	1955	Fay Crocker.....	299
1947	Betty Jameson.....	295	1952	Louise Suggs.....	284	1956	Mrs. Katherine Cornelius (a). 302	
1948	Mrs. Mildred D. Zaharias.....	300	1953	Betsy Rawls (a).....	302	1957	Betsy Rawls.....	299
1949	Louise Suggs.....	291	1954	Mrs. Mildred D. Zaharias.....	291	1958	Mickey Wright.....	290
1950	Mrs. Mildred D. Zaharias.....	291						

(a) Winner in playoff.

UNITED STATES WOMEN'S AMATEUR CHAMPIONS

1895	Mrs. C. S. Brown	1915	Mrs. C. H. Vanderbeck	1937	Mrs. J. A. Page, Jr.
1896	Beatrix Hoyt	1916	Alexa Stirling	1938	Patty Berg
1897	Beatrix Hoyt	1919	Alexa Stirling	1939	Betty Jameson
1898	Beatrix Hoyt	1920	Alexa Stirling	1940	Betty Jameson
1899	Ruth Underhill	1921	Marion Hollins	1941	Mrs. Frank Newell
1900	Frances C. Griscorn	1922	Glenna Collett	1946	Mrs. M. D. Zaharias
1901	Genevieve Hecker	1923	Edith Cummings	1947	Louise Suggs
1902	Genevieve Hecker	1924	Mrs. D. C. Hurd	1948	Grace Lenczyk
1903	Bessie Anthony	1925	Glenna Collett	1949	Mrs. D. G. Porter
1904	G. M. Bishop	1926	Mrs. G. H. Stetson	1950	Beverly Hanson
1905	Pauline Mackay	1927	Mrs. M. B. Horn	1951	Dorothy Kirby
1906	Harriot S. Curtis	1928	Glenna Collett	1952	Mrs. Jacqueline Pung
1907	Margaret Curtis	1929	Glenna Collett	1953	Mary Lena Faulk
1908	K. C. Harley	1930	Glenna Collett	1954	Barbara Romack
1909	D. I. Campbell	1931	Helen Hicks	1955	Patricia Lesser
1910	D. I. Campbell	1932	Virginia Van Wie	1956	Marlene Stewart
1911	Margaret Curtis	1933	Virginia Van Wie	1957	Joanne Gunderson
1912	Margaret Curtis	1934	Virginia Van Wie	1958	Anne Quast
1913	Gladys Ravenscroft	1935	Mrs. E. H. Vore, Jr.		
1914	Mrs. H. A. Jackson	1936	Pamela Barton		

BRITISH OPEN CHAMPIONS

Year	Winner	Score	Year	Winner	Score	Year	Winner	Score
1860	W. Park	174	1890	John Ball	164	1924	Walter Hagen	301
1861	Tom Morris, Sr.	163	1891	Hugh Kirkaldy	166	1925	Jim Barnes	300
1862	Tom Morris, Sr.	163	1892*	H. H. Hilton	305	1926	R. T. Jones, Jr.	291
1863	W. Park	168	1893	W. Auchterlonie	322	1927	R. T. Jones, Jr.	285
1864	Tom Morris, Sr.	167	1894	J. H. Taylor	326	1928	Walter Hagen	292
1865	A. L. Strath	162	1895	J. H. Taylor	322	1929	Walter Hagen	292
1866	W. Park	169	1896	Harry Vardon (a)	316	1930	R. T. Jones, Jr.	291
1867	Tom Morris, Sr.	170	1897	H. H. Hilton	314	1931	T. D. Armour	296
1868	Tom Morris, Jr.	170	1898	Harry Vardon	307	1932	G. Sarazen	283
1869	Tom Morris, Jr.	154	1899	Harry Vardon	310	1933	D. Shute (a)	292
1870	Tom Morris, Jr.	149	1900	J. H. Taylor	309	1934	T. H. Cotton	283
1872	Tom Morris, Jr.	166	1901	James Braid	309	1935	A. Perry	283
1873	Tom Kidd	179	1902	Alex Herd	307	1936	A. H. Padgham	287
1874	Mungo Park	159	1903	Harry Vardon	300	1937	T. H. Cotton	290
1875	Willie Park	166	1904	Jack White	296	1938	R. A. Whitcombe	295
1876	Bob Martin	176	1905	James Braid	318	1939	R. Burton	290
1877	Jamie Anderson	160	1906	James Braid	300	1940	Sam Snead	290
1878	Jamie Anderson	157	1907	Arnaud Massy	312	1947	Fred Daly	293
1879	Jamie Anderson	170	1908	James Braid	291	1948	Henry Cotton	284
1880	Bob Ferguson	162	1909	J. H. Taylor	295	1949	Bobby Locke (a)	283
1881	Bob Ferguson	170	1910	James Braid	299	1950	Bobby Locke	279
1882	Bob Ferguson	171	1911	Harry Vardon (a)	303	1951	Max Faulkner	285
1883	W. L. Fernie (a)	159	1912	E. Ray	295	1952	Bobby Locke	287
1884	Jack Simpson	160	1913	J. H. Taylor	304	1953	Ben Hogan	282
1885	Bob Martin	171	1914	Harry Vardon	306	1954	Peter Thomson	283
1886	D. L. Brown	157	1920	George Duncan	303	1955	Peter Thomson	281
1887	W. Park, Jr.	161	1921	Jock Hutchison (a)	296	1956	Peter Thomson	286
1888	Jack Burns	171	1922	Walter Hagen	300	1957	Bobby Locke	279
1889	W. Park, Jr. (a)	155	1923	A. G. Havers	295	1958	Peter Thomson (a)	278

(a) Winner in playoff. * In 1892 competition was extended to 72 holes.

BRITISH AMATEUR CHAMPIONS

Year	Winner	Year	Winner	Year	Winner
1885	A. F. MacFie	1906	James Robb	1932	J. De Forest
1886	H. G. Hutchinson	1907	John Ball	1933	Hon. M. Scott
1887	H. G. Hutchinson	1908	E. A. Lassen	1934	W. Lawson Little, Jr.
1888	John Ball	1909	R. Maxwell	1935	W. Lawson Little, Jr.
1889	J. E. Laidlay	1910	John Ball	1936	H. Thomson
1890	John Ball	1911	H. H. Hilton	1937	R. Sweeny, Jr.
1891	J. E. Laidlay	1912	John Ball	1938	C. R. Yates
1892	John Ball	1913	H. H. Hilton	1939	A. Kyle
1893	Peter L. Anderson	1914	J. L. C. Jenkins	1946	J. Bruen
1894	John Ball	1920	Cyril J. H. Tolley	1947	Willie Turnesa
1895	L. M. B. Melville	1921	W. I. Hunter	1948	Frank Stranahan
1896	F. G. Tait	1922	E. W. E. Holderness	1949	Max McCready
1897	A. J. T. Allan	1923	R. H. Wethered	1950	Frank Stranahan
1898	F. G. Tait	1924	E. W. E. Holderness	1951	Richard D. Chapman
1899	John Ball	1925	Robert Harris	1952	Harvie Ward
1900	H. H. Hilton	1926	Jess W. Sweetser	1953	Joe Carr
1901	H. H. Hilton	1927	Dr. W. Tweddell	1954	Doug Bachli
1902	C. Hutchings	1928	T. P. Perkins	1955	Lt. Joe Conrad
1903	R. Maxwell	1929	C. J. H. Tolley	1956	John Beharrell
1904	W. J. Travis	1930	R. T. Jones, Jr.	1957	Reid Jack
1905	A. G. Barry	1931	E. Martin Smith	1958	Joe Carr

THE MASTERS TOURNAMENT WINNERS

Augusta National Golf Club, Augusta, Ga.

Year	Winner	Score	Year	Winner	Score	Year	Winner	Score
1934	Horton Smith	284	1942	Byron Nelson (a)	280	1952	Sam Snead	286
1935	Gene Sarazen (a)	282	1943-45	No tournaments		1953	Ben Hogan	274
1936	Horton Smith	285	1946	Herman Keiser	282	1954	Sam Snead (a)	289
1937	Byron Nelson	283	1947	Jimmy Demaret	281	1956	Cary Middlecoff	279
1938	Henry Picard	285	1948	Claude Harmon	279	1956	Jack Burke	289
1939	Ralph Guldahl	279	1949	Sam Snead	282	1957	Doug Ford	283
1940	Jimmy Demaret	280	1950	Jimmy Demaret	283	1958	Arnold Palmer	284
1941	Craig Wood	280	1951	Ben Hogan	280			

(a) Winner in playoff.

INTERNATIONAL TEAM MATCHES

Walker Cup Record

MEN (AMATEUR)

Year		Where played
1922	United States 8, Great Britain 4...	Southampton
1923	United States 6, Great Britain 5...	St. Andrews
1924	United States 9, Great Britain 3...	Garden City G. C.
1926	United States 6, Great Britain 5...	St. Andrews
1928	United States 11, Great Britain 1...	Wheaton, Ill.
1930	United States 10, Great Britain 2...	Royal St. George's
1932	United States 8, Great Britain 1...	Brookline, Mass.
1934	United States 9, Great Britain 2...	St. Andrews
1936	United States 9, Great Britain 0...	Pine Valley G. C.,
1938	Great Britain 7, United States 4...	St. Andrews
1947	United States 8, Great Britain 4...	St. Andrews
1949	United States 10, Great Britain 2...	Winged Foot
1951	United States 6, Great Britain 3...	Southport
1953	United States 9, Great Britain 3...	Kittansett
1955	United States 10, Great Britain 2...	St. Andrews
1957	United States 8, Great Britain 3...	Minikahda

Ryder Cup Record

MEN (PROFESSIONAL)

Year		Where played
1927	United States 9½, Great Britain 2½...	Worcester C. C.
1929	Great Britain 7, United States 5...	Moortown, Eng.
1931	United States 9, Great Britain 3...	Scioto C. C.
1933	Great Britain 6½, United States 5½...	Southport, Eng.
1935	United States 9, Great Britain 3...	Ridgewood C. C.
1937	United States 8, Great Britain 4...	Southport, Eng.
1947	United States 11, Great Britain 1...	Portland, Oreg.
1949	United States 7, Great Britain 5...	Ganton, Eng.
1951	United States 9½, Great Britain 2½...	Pinehurst, N. C.
1953	United States 6½, Great Britain 5½...	Wentworth
1955	United States 8, Great Britain 4...	Palm Springs
1957	Great Britain 7, United States 4...	Workshop, Eng.

Curtis Cup Record

WOMEN AMATEUR

Year		Where played
1932	United States 5½, Great Britain 3½...	Wentworth, Eng.
1934	United States 6½, Great Britain 2½...	Chevy Chase
1936	United States 4½, Great Britain 4½...	Gleneagles
1938	United States 5½, Great Britain 3½...	Essex C. C.
1948	United States 6½, Great Britain 2½...	Birkdale
1950	United States 7½, Great Britain 1½...	Buffalo
1952	Great Britain 5, United States 4...	Muirfield
1954	United States 6, Great Britain 3...	Merion
1956	Great Britain 5, United States 4...	Sandwich
1958	Great Britain 4½, United States 4½...	Brae Burn

Americas Cup Record

MEN (AMATEUR)

Year	
1952	United States 12, Canada 10, Mexico 5
1954	United States 14, Canada 13, Mexico 0
1956	United States 29½, Mexico 13, Canada 11½
1958	United States 30, Canada 17, Mexico 7

World Amateur Championship

(MEN)

Year		
1958	Australia (a).....	918
(a) Winner in playoff.		

NATIONAL COLLEGIATE CHAMPIONS

Conducted by United States Golf Association, 1897-1938; by National Collegiate Athletic Association, since 1939.

Year	Individual	Team
1897	Louis P. Bayard, Jr., Princeton.....	Yale
1898*	John Reid, Jr., Yale.....	Harvard
	James F. Curtis, Harvard.....	Yale
1899	Percy Pyne, 2d, Princeton.....	Harvard
1900	No tournament	
1901	H. Lindsay, Harvard.....	Harvard
1902*	Charles Hitchcock, Jr., Yale.....	Yale
	H. Chandler Egan, Harvard.....	Harvard
1903	F. O. Reinhart, Princeton.....	Harvard
1904	A. L. White, Harvard.....	Harvard
1905	Robert Abbott, Yale.....	Yale
1906	W. E. Clow, Jr., Yale.....	Yale
1907	Ellis Knowles, Yale.....	Yale
1908	H. H. Wilder, Harvard.....	Yale
1909	Albert Seckel, Princeton.....	Yale
1910	Robert E. Hunter, Yale.....	Yale
1911	George C. Stanley, Yale.....	Yale
1912	F. C. Davison, Harvard.....	Yale
1913	Nathaniel Wheeler, Yale.....	Yale
1914	Edward P. Allis, 3d, Harvard.....	Princeton
1915	Francis R. Blossom, Yale.....	Yale
1916	J. W. Hubbell, Harvard.....	Princeton
1917-18	No tournaments	
1919	A. L. Walker, Jr., Columbia.....	Princeton
1920	Jess W. Sweetser, Yale.....	Princeton
1921	J. Simpson Dean, Princeton.....	Dartmouth
1922	Pollack Boyd, Dartmouth.....	Princeton
1923	Dexter Cummings, Yale.....	Princeton
1924	Dexter Cummings, Yale.....	Yale
1925	G. Fred Lamprecht, Tulane.....	Yale
1926	G. Fred Lamprecht, Tulane.....	Yale
1927	Watts Gunn, Georgia Tech.....	Princeton
1928	M. J. McCarthy, Jr., Georgetown.....	Princeton
1929	Tom Aycock, Yale.....	Princeton
1930	George T. Dunlap, Jr., Princeton.....	Princeton
1931	George T. Dunlap, Jr., Princeton.....	Yale
1932	John W. Fischer, Jr., Michigan.....	Yale
1933	Walter Emery, Oklahoma.....	Yale
1934	Charles R. Yates, Georgia Tech.....	Michigan
1935	Ed White, U. of Texas.....	Michigan
1936	Charles Kocsis, Michigan.....	Yale
1937	Fred Haas, Jr., L. S. U.....	Princeton
1938	John P. Burke, Georgetown.....	Stanford
1939	Vincent D'Antoni, Tulane.....	Stanford
1940	F. Dixon Brooke, Virginia.....	Princeton
		L. S. U.
1941	Earl Stewart, L. S. U.....	Stanford
1942	Frank Tatam, Jr., Stanford.....	Stanford
		L. S. U.
1943	Wallace Ulrich, Carleton.....	Yale
1944	Louis Lick, Minnesota.....	Notre Dame
1945	John Lorma, Ohio State.....	Ohio State
1946	George Hamer, Georgia.....	Stanford
1947	Dave Barclay, Michigan.....	L. S. U.
1948	Bobby Harris, San Jose St.....	San Jose St.
1949	Harvie Ward, North Carolina.....	No. Tex. St.
1950	Fred Wampler, Purdue.....	No. Tex. St.
1951	Tom Nieporte, Ohio State.....	No. Tex. St.
1952	Jim Vickers, Oklahoma.....	No. Tex. St.
1953	Earl Moeller, Okla. A. & M.....	Stanford
1954	Hilman Robbins, Jr., Memphis St.....	S. M. U.
1955	Joe Campbell, Purdue.....	L. S. U.
1956	Rick Jones, Ohio State.....	Houston
1957	Rex Baxter, Houston.....	Houston
1958	Phil Rodgers, Houston.....	So. California

* Two tournaments, in spring and fall.

BOXING

WHETHER it be called pugilism, prize fighting or boxing, there is no tracing "the Sweet Science" to any definite source. Tales of rivals exchanging blows for fun, fame or money go back to earliest recorded history and classical legend. There was a mixture of boxing and wrestling called the "pancratium" in the ancient Olympic Games and in such contests the rivals belabored one another with hands fortified with heavy leather wrappings that were sometimes studded with metal. More than one Olympic competitor lost his life at this brutal exercise.

There was little law or order in pugilism until Jack Broughton, one of the early champions of England, drew up a set of rules for the game in 1743. Broughton, called "the father of English boxing," also is credited with having invented boxing gloves. However, these gloves—or "mufflers" as they were called—were used only in teaching "the manly art of self-defense" or in training bouts. All professional

championship fights were contested with "bare knuckles" until 1892 when John L. Sullivan lost the heavyweight championship of the world to James J. Corbett in New Orleans in a bout in which both contestants wore regulation gloves.

The Broughton rules were superseded by the London Prize Ring Rules of 1838. The 8th Marquis of Queensberry, with the help of John G. Chambers, put forward the "Queensberry Rules" in 1866, a code that called for gloved contests. Amateurs took quickly to the Queensberry Rules, the professionals slowly.

There is no official international set of rules for boxing even today. Amateur organizations set rules for amateurs in different countries and professional rules set by boxing commissions vary even in different sections of the United States, but the variations are for the most part minor. A prize fighter doesn't have to change his style greatly to ply his trade anywhere in the world.

Boxing Statistics

Source: *Nat Fletscher's All-Time Record Book and Encyclopedia of Boxing*, published and copyrighted by The Ring Book Shop, Inc., Madison Square Garden, New York, N. Y.

Boxing's Biggest Gates

WF—Won on foul.		ND—No decision.	(1st)—First bout.	(2d)—Second bout.	(3d)—Third bout.
Date	Winner, weight	Loser, weight	Rounds	Site	Receipts Attendance
Sept. 22, 1927	Tunney (189½)-Dempsey (192½) (2d) . . .		10	Soldier Field, Chicago	\$2,658,660 104,943
June 19, 1946	Louis (207)-Conn (187) (2d)		KO 8	Yankee Stadium, New York	1,925,564 45,266
Sept. 23, 1926	Tunney (189½)-Dempsey (190) (1st)		10	Sesquicentennial Stdm., Phila.	1,895,733 120,757
July 2, 1921	Dempsey (188)-Carpentier (172)		KO 4	Boyle's 30 Acres, Jersey City	1,789,238 80,000
Sept. 14, 1923	Dempsey (192½)-Firpo (216½)		KO 2	Polo Grounds, New York	1,188,603 82,000
July 21, 1927	Dempsey (194½)-Sharkey (196)		KO 7	Yankee Stadium, New York	1,083,530 75,000
June 22, 1938	Louis (198½)-Schmeling (193) (2d)		KO 1	Yankee Stadium, New York	1,015,012 70,000
Sept. 24, 1935	Louis (199¼)-Max Baer (210½)		KO 4	Yankee Stadium, New York	1,000,832 88,150
Sept. 21, 1955	Marciano (188¼)-Moore (188)		KO 9	Yankee Stadium, New York	948,117 61,574
June 25, 1948	Louis (213½)-Walcott (194¼) (2d)		KO 11	Yankee Stadium, New York	841,739 42,667
Sept. 12, 1951	Robinson (157½)-Turpin (159) (2d)		KO 10	Polo Grounds, New York	767,626 61,370
June 12, 1930	Schmeling (188)-Sharkey (197) (1st)		WF 4	Yankee Stadium, New York	749,935 79,222
June 22, 1937	Louis (197¼)-Braddock (197)		KO 8	Comiskey Park, Chicago	715,470 45,500
July 26, 1928	Tunney (192)-Heeney (203½)		KO 11	Yankee Stadium, New York	691,014 45,890
Sept. 29, 1941	Louis (202¼)-Nova (202½)		KO 6	Polo Grounds, New York	583,711 56,549
Sept. 23, 1957	Basilio (153½)-Robinson (160) (1st)		15	Yankee Stadium, New York	556,467 38,072
June 19, 1936	Schmeling (192)-Louis (198) (1st)		KO 12	Yankee Stadium, New York	547,541 42,088
June 17, 1954	Marciano (187½)-Charles (185½) (1st) . . .		15	Yankee Stadium, New York	543,092 47,585
Sept. 11, 1924	Wills (217)-Firpo (224½)		ND 12	Boyle's 30 Acres, Jersey City	509,135 70,000
Sept. 23, 1952	Marciano (184)-Walcott (196)		KO 13	Municipal Stdm., Phila.	504,645 40,379
June 26, 1959	Johansson (196)-Patterson (182)		KO 3	Yankee Stadium, New York	469,650 18,215
July 16, 1926	Delaney (166½)-Berlenbach (174¼) (3d) . . .		15	Ebbets Field, Brooklyn	461,789 49,186
July 23, 1923	Leonard (134)-Tendler (133½) (2d)		15	Yankee Stadium, New York	452,648 58,519
July 4, 1919	Dempsey (187)-Willard (245)		KO 3	Toledo, Ohio	452,224 19,650
June 18, 1941	Louis (199¼)-Conn (174) (1st)		KO 13	Polo Grounds, New York	451,743 60,071
Sept. 24, 1953	Marciano (185)-LaStarza (184¼) (2d) . . .		KO 11	Polo Grounds, New York	435,817 44,562
June 21, 1932	Sharkey (205)-Schmeling (188) (2d)		15	Long Island City Bowl, N. Y.	432,465 61,863
June 14, 1934	Max Baer (209¼)-Carnera (263¼)		KO 11	Long Island City Bowl, N. Y.	428,000 56,000
July 16, 1947	Granziano (154¼)-Zale (159) (2d)		KO 6	Chicago Stadium	422,918 18,547
June 25, 1952	Maxim (173)-Robinson (157½)		KO 14	Yankee Stadium, New York	421,615 47,983
Feb. 27, 1929	Sharkey (192)-Stribling (182)		10	Flamingo Park, Miami Beach, Fla.	405,000 40,000
July 12, 1923	Firpo (214)-Willard (242)		KO 8	Boyle's 30 Acres, Jersey City	390,837 80,000
May 12, 1923	Firpo (212)-McAuliffe (200)		KO 3	Yankee Stadium, New York	385,040 31,000
	Willard (245)-Floyd Johnson (195)		KO 11		
June 27, 1929	Schmeling (187)-Uzcudun (192½) (1st) . . .		15	Yankee Stadium, New York	378,902 65,000
July 27, 1922	Leonard (134¼)-Tendler (134¼) (1st) . . .		ND 12	Boyle's 30 Acres, Jersey City	367,882 54,685
Sept. 17, 1954	Marciano (187½)-Charles (192½) (2d) . . .		KO 8	Yankee Stadium, New York	352,654 34,330
Mar. 25, 1958	Robinson (159¼)-Basilio (153) (2d)		15	Chicago Stadium	351,955 17,976

HISTORY OF WORLD HEAVYWEIGHT CHAMPIONSHIP FIGHTS

(Bouts in which title changed hands)

Date	Where held	Winner, weight, age	Loser, weight, age	Rounds	Referee
Sept. 7, 1892	New Orleans, La. . . .	James J. Corbett, 178 (26) . . .	John L. Sullivan, 212 (33) . . .	21	Prof. John Duffy
Mar. 17, 1897	Carson City, Nev. . . .	Bob Fitzsimmons, 167 (34) . . .	James J. Corbett, 183 (30) . . .	KO 14	George Siler
June 9, 1899	Coney Island, N. Y. . . .	(a) James J. Jeffries, 206 (24) . . .	Bob Fitzsimmons, 167 (37) . . .	KO 11	George Siler
Feb. 23, 1906	Los Angeles	(b) Tommy Burns, 180 (24) . . .	Marvin Hart, 188 (29)	20	James J. Jeffries
Dec. 26, 1908	Sydney, N. S. W.	Jack Johnson, 196 (30)	Tommy Burns, 176 (27)	KO 14	Hugh McIntosh
April 5, 1915	Havana, Cuba	Jess Willard, 230 (31)	Jack Johnson, 205½ (37)	KO 26	Jack Welch
July 4, 1919	Toledo, Ohio	Jack Dempsey, 187 (24)	Jess Willard, 245 (35)	KO 3	Ollie Pecord
Sept. 23, 1926	Philadelphia	(c) Gene Tunney, 189½ (28)	Jack Dempsey, 190 (31)	10	Pop Reilly
June 12, 1930	New York	Max Schmeling, 188 (24)	Jack Sharkey, 197 (27)	WF 4	Jim Crowley
June 21, 1932	Long Island City	Jack Sharkey, 205 (29)	Max Schmeling, 188 (26)	15	Gunboat Smith
June 29, 1933	Long Island City	Primo Carnera, 260½ (26)	Jack Sharkey, 201 (30)	KO- 6	Arthur Donovan
June 14, 1934	Long Island City	Max Baer, 209½ (25)	Primo Carnera, 263½ (27)	KO 11	Arthur Donovan
June 13, 1935	Long Island City	Jim Braddock, 193½ (29)	Max Baer, 209½ (26)	15	Jack McAvoy
June 22, 1937	Chicago	Joe Louis, 197¼ (23)	Jim Braddock, 197 (31)	KO 8	Tommy Thomas
June 22, 1949	Chicago	(d) Ezzard Charles, 181½ (27)	Joe Walcott, 195½ (35)	15	Davey Miller
Sept. 27, 1950	New York	(e) Ezzard Charles, 184½ (29)	Joe Louis, 218 (36)	15	Mack Conn
July 18, 1951	Pittsburgh	Joe Walcott, 194 (37)	Ezzard Charles, 182 (30)	KO 7	Buck McTiernan
Sept. 23, 1952	Philadelphia	(f) Rocky Marciano, 184 (28)	Joe Walcott, 196 (38)	KO 13	Charley Daggert
Nov. 30, 1956	Chicago	Floyd Patterson, 182¼ (21)	Archie Moore, 187¼ (39)	KO 5	Frank Sikora
June 26, 1959	New York	Ingemar Johansson, 196 (26)	Floyd Patterson, 182 (24)	KO 3	Ruby Goldstein

(a) Jeffries retired as champion in March 1906. He named Marvin Hart and Jack Root as leading contenders and agreed to referee their fight in Reno, Nev., on July 3, 1906, with the stipulation that he would term the winner the champion. Hart, 190 (28), knocked out Root, 171 (29), in the 12th round. (b) Burns claimed the title after defeating Hart. (c) Tunney retired as champion after defeating Tom Heeney on July 26, 1928. (d) After Louis announced his retirement as champion on March 1, 1949, Charles won recognition from the National Boxing Association as champion by defeating Walcott. (e) Charles gained undisputed recognition as champion by defeating Louis, who came out of retirement. (f) Retired as champion April 27, 1956.

BARE-KNUCKLE HEAVYWEIGHT CHAMPIONS, 1719-1892

- 1719—Jim Figg
 1734—George Taylor
 1740—Jack Broughton
 1750—Jack Slack
 1760—Bill Stevens
 1761—George Meggs
 1765—Bill Darts
 1777—Harry Sellers
 1780—Jack Harris
 1785—Tom (Jackling) Johnson
 1790—Big Ben Brain
 1792—Daniel Mendoza
 1795—John Jackson (retired)
 1802—Jem Belcher
 1805—Henry Pearce (Game Chicken)
 1808—John Gully (declined title)
 1809—Tom Cribb received belt, not transferable, and cup.
 1824—Tom Spring received four cups; resigned title.
 1825—Jem Ward received belt, not transferable.
 1838—James (Deaf) Burke claimed title.
 1839—William Thompson (Bendigo) beat Burke; claimed championship; received belt from Jem Ward.
 1841—Nick Ward (Jem's brother) beat Ben Caunt, Feb. 2. In return match Caunt beat Nick Ward and received belt by subscription. It was transferable.
 1848—Thompson beat Caunt and got belt.
 1860—Bill Perry (The Tipton Slasher), after fight with Paddock, claimed title.
 1861—Harry Broome won title from Perry.
 1868—Perry claimed title when Broome forfeited £200 to him in a match; retired from ring on Aug. 13.
 1867—Tom Sayers beat Perry for £200 a side and new belt.
 1860—Sayers retired after 42-round draw with John C. Heenan (The Benicia Boy), leaving old belt open for competition.
 1860—Sam Hurst (The Stalybridge Infant) beat Paddock and received belt.
 1861—Jem Mace beat Hurst.
 1862—Mace beat Tom King for £200 a side and the belt.
 1862—King beat Mace and claimed belt. Subsequently gave it up. Declined to meet Mace again. Mace claimed belt.
 1863—King beat Heenan for £1,000 a side.
 1865—Joe Wormald beat Andrew Marsden for £200 a side and belt, which had been claimed by both. Belt was given to Wormald, who forfeited £120 to Mace.
 1866—Mace and Joe Goss fought draw with £200 a side and belt at stake.
 1867—Wormald received £200 forfeit from Ned O'Baldwin and claimed belt when O'Baldwin failed to appear at starting place.
 1867—Mace and O'Baldwin drew; £200 a side; title and belt in abeyance.
 1869—Mike McCoole defeated Tom Allen and claimed American championship.
 1870—Mace claimed world title by knocking out Allen in 10 rounds.
 1873—Mace retired and Allen claimed title of world champion by defeating McCoole.
 1876—Allen fought Joe Goss, ranked next to Mace in England. Allen was disqualified in the 27th round for fouling and Goss was recognized as world champion under London Prize Ring Rules.
 1880—Paddy Ryan knocked out Goss in the 87th round on May 30, near Colliers Station, W. Va., and became the first American to hold the undisputed world's bare knuckle championship.
 1882—John L. Sullivan knocked out Ryan in the 9th round at Mississippi City, Miss., on Feb. 7 and became the last bare knuckle champion.
 1889—Sullivan defeated Jake Kilrain in the last bare knuckle championship fight. The bout, on July 8 at Richburg, Miss., went 75 rounds.

OTHER WORLD BOXING TITLEHOLDERS

LIGHT HEAVYWEIGHT CHAMPIONS

1903 —Jack Root, George Gardner
 1903-05—Bob Fitzsimmons
 1905-12—Philadelphia Jack O'Brien (r)
 1912-16—Jack Dillon
 1916-20—Battling Levinsky
 1920-22—Georges Carpentier
 1923 —Battling Siki
 1923-25—Mike McTigue
 1925-26—Paul Berlenbach
 1926-27—Jack Delaney (a)
 1927 —Mike McTigue
 1927-29—Tommy Loughran (a)
 1930 —Jimmy Slattery
 1930-34—Maxie Rosenbloom
 1934-35—Bob Olin
 1935-39—John Henry Lewis (a)
 1939 —Melio Bettina
 1939-41—Billy Conn (a)
 1941 —Anton Christoforidis (NBA)
 1941-48—Gus Lesnevich
 1948-50—Freddie Mills
 1950-52—Joey Maxim
 1952 —Archie Moore

(a)Abandoned title. (r)Retired.

MIDDLEWEIGHT CHAMPIONS

1867-72—Tom Chandler
 1872-81—George Rooke
 1881-82—Mike Donovan (r)
 1884-91—Jack (Nonpareil) Dempsey
 1891-97—Bob Fitzsimmons (a)
 1908 —Stanley Ketchel, Billy Papke
 1908-10—Stanley Ketchel (d)
 1913 —Frank Klaus
 1913-14—George Chip
 1914-17—Al McCoy
 1917-20—Mike O'Dowd
 1920-23—Johnny Wilson
 1923-26—Harry Greb
 1926 —Tiger Flowers
 1926-31—Mickey Walker (a)
 1931-41—The National Boxing Association and the New York State Athletic Commission were divided on title holders throughout these years. The following were regarded as champions by one body or the other in this period: Gorilla Jones, Ben Jeby, Marcel Thil, Lou Brouillard, Vince Dundee, Teddy Yarosz, Babe Risko, Freddy Steele, Al Hostak, Solly Krieger, Fred Apostoli, Ceferino Garcia, Ken Overlin, Billy Soose, Tony Zale.

1941-47—Tony Zale
 1947-48—Rocky Graziano
 1948 —Tony Zale
 1948-49—Marcel Cerdan
 1949-51—Jake La Motta
 1951 —Ray Robinson, Randy Turpin
 1951-52—Ray Robinson (r)
 1953-55—Carl Olson
 1955-57—Ray Robinson
 1957 —Gene Fullmer, Ray Robinson
 1957-58—Carmen Basilio
 1958 —Ray Robinson (x)
 1959 —Gene Fullmer (NBA)

(a)Abandoned title. (d)Died. (r)Retired. (x)NBA withdrew recognition in 1959.

WELTERWEIGHT CHAMPIONS

1892-94—Mysterious Billy Smith
 1894-96—Tommy Ryan
 1896 —Kid McCoy (a)
 1896-1900—Mysterious Billy Smith
 1900 —Rube Ferns
 1900-01—Matty Matthews
 1901 —Rube Ferns
 1901-04—Joe Walcott
 1904 —Dixie Kid (a)
 1904-06—Joe Walcott
 1906-07—Honey Melody
 1907 —Mike (Twin) Sullivan (a)
 1915-19—Ted Lewis
 1919-22—Jack Britton
 1922-26—Mickey Walker
 1926-27—Pete Latzo
 1927-29—Joe Dundee
 1929-30—Jackie Fields
 1930 —Young Jack Thompson
 1930-31—Tommy Freeman
 1931 —Young Jack Thompson
 1931-32—Lou Brouillard
 1932-33—Jackie Fields
 1933 —Young Corbett 3d
 1933-34—Jimmy McLarnin
 1934 —Barney Ross
 1934-35—Jimmy McLarnin
 1935-38—Barney Ross
 1938-40—Henry Armstrong
 1940-41—Fritzie Zivic
 1941-46—Freddie Cochrane
 1946 —Marty Servo (r)
 1946-51—Ray Robinson (a)
 1951 —Johnny Bratton (NBA)
 1951-54—Kid Gavilan
 1954-55—Johnny Saxton
 1955 —Tony DeMarco
 1955-56—Carmen Basilio
 1956 —Johnny Saxton
 1956-57—Carmen Basilio (a)
 1958 —Virgil Akins
 1958 —Don Jordan

(a)Abandoned title. (r)Retired.

Famous Firsts in Boxing

First set of boxing rules and first set of boxing gloves: Made by Jack Broughton, 1743.

First glove fight: Between two English boxers, at Aix-la-Chapelle, France, October 8, 1818.

First million-dollar gate: Jack Dempsey vs. Georges Carpentier at Boyle's Thirty Acres, Jersey City, N. J., July 2, 1921 (\$1,789,238).

First round-by-round fight broadcast: Dempsey vs. Carpentier, 1921, J. Andrew White announcer.

First fight on television (publicly screened): Eric Boon vs. Arthur Danahar, Harringay Arena, London, England, February 23, 1939.

LIGHTWEIGHT CHAMPIONS

- 1885-96—Jack McAuliffe*
 1896-99—Kid Lavigne
 1899-02—Frank Erne
 1902-08—Joe Gans
 1908-10—Battling Nelson
 1910-12—Ad Wolgast
 1912-14—Willie Ritchie
 1914-17—Freddy Welsh
 1917-25—Benny Leonard (r)
 1925 —Jimmy Goodrich
 1925-26—Rocky Kansas
 1926-30—Sammy Mandell
 1930 —Al Singer
 1930-33—Tony Canzoneri
 1933-35—Barney Ross (a)
 1935-36—Tony Canzoneri
 1936-38—Lou Ambers
 1938-39—Henry Armstrong
 1939-40—Lou Ambers
 1940-41—Lew Jenkins
 1941-42—Sammy Angott (r)
 1943-47—The National Boxing Association and the New York State Athletic Commission recognized different champions in these years. Title holders, according to the N. Y. Commission, were Beau Jack and Bob Montgomery, and, according to the NBA, Sammy Angott, who made a comeback, Juan Zurita and Ike Williams. Williams defeated Montgomery in 1947 to provide a universal champion.
 1947-51—Ike Williams
 1951-52—James Carter
 1952 —Lauro Salas
 1952-54—James Carter
 1954 —Paddy DeMarco
 1954-55—James Carter
 1955-56—Wallace Smith
 1956 —Joe Brown

* McAuliffe was champion of America, but never held the world crown, his battle for the world title with Jem Canney of England in 1887 resulting in a 74-round draw.
 (a) Abandoned title. (r) Retired.

FEATHERWEIGHT CHAMPIONS

- 1889 —Dal Hawkins (a)
 1890 —Billy Murphy
 1892-1900—George Dixon
 1900-01—Terry McGovern
 1901 —Young Corbett (a)
 1901-12—Abe Attell
 1912-23—Johnny Kilbane
 1923 —Eugene Ciqui
 1923-25—Johnny Dundee (a)
 1925-27—Louis (Kid) Kaplan (a)
 1927-28—Benny Bass
 1928 —Tony Canzoneri
 1928-29—Andre Routis
 1929-32—Battling Battalino (a)
 1932 —Tommy Paul (NBA); Kid Chocolate (N. Y. Comm.).
 1933-36—Freddie Miller
 1936-37—Petey Sarron
 1937-38—Henry Armstrong (a)
 1938-40—Joey Archibald
 1940-41—Harry Jeffra, Joey Archibald
 1941-42—Chalky Wright
 1942-48—Willie Pep
 1948-49—Sandy Saddler
 1949-50—Willie Pep
 1950-57—Sandy Saddler (r)
 1957-59—Kid Bassey
 1959 —Davey Moore

(a) Abandoned title. (r) Retired.

BANTAMWEIGHT CHAMPIONS

- 1890-92—George Dixon (a)
 1894-99—Jimmy Barry (r)
 1899-1900—Terry McGovern (a)
 1901 —Harry Harris (a)
 1902-03—Harry Forbes
 1903-04—Frankie Neil
 1904 —Joe Bowker (a)
 1905-07—Jimmy Walsh (a)
 1910-14—Johnny Coulon
 1914-17—Kid Williams
 1917-20—Pete Herman
 1920-21—Joe Lynch
 1921 —Pete Herman
 1921-22—Johnny Buff
 1922-24—Joe Lynch
 1924 —Abe Goldstein
 1924-25—Eddie (Cannonball) Martin
 1925 —Charlie (Phil) Rosenberg (d)
 1927-28—Bud Taylor (NBA) (a)
 1929-35—Al Brown
 1935-36—Baltazar Sangchili
 1936 —Tony Marino
 1936-37—Sixto Escobar
 1937-38—Harry Jeffra
 1938-40—Sixto Escobar (r)
 1940-42—Lou Salica
 1942-47—Manuel Ortiz
 1947 —Harold Dade
 1947-50—Manuel Ortiz
 1950-52—Vic Toweel
 1952-54—Jimmy Carruthers (r)
 1954-56—Robert Cohen
 1956-57—Mario D'Agata
 1956 —Raul Macias (NBA)
 1957-59—Alphonse Halimi
 1959 —Jose Becerra

(a) Abandoned title. (d) Deprived of title when unable to make weight for championship bout. (r) Retired.

FLYWEIGHT CHAMPIONS

- 1916-23—Jimmy Wilde
 1923-25—Pancho Villa (d)
 1925 —Frankie Genaro
 1925-27—Fidel La Barba (r)
 1927-31—The NBA and the New York Commission recognized different champions in these years. Claimants at various times were Corporal Izzy Schwartz, Frankie Genaro, Emile Spider Pladner, Midge Wolgast and Young Perez.
 1932-35—Jackie Brown
 1935-38—Benny Lynch (a)
 1939 —Peter Kane (a)
 1943-47—Jackie Paterson (d)
 1947-50—Rinty Monaghan (r)
 1950 —Terry Allen
 1950-52—Dado Marino
 1952-54—Yoshio Shirai
 1954 —Pascual Perez

(a) Abandoned title. (d) Died. (r) Retired.

PROFESSIONAL WEIGHT LIMITS

	lbs.
Flyweight	112
Bantamweight	118
Featherweight	126
Lightweight	135
Welterweight	147
Middleweight	160
Light heavyweight	175
Heavyweight	over 175

ICE (FIGURE) SKATING

World Champions

MEN			
1896	Gilbert Fuchs, Germany	1925-28	Willi Boeckl, Austria
1897	Gustav Hugel, Austria	1929	Gillis Grafstrom, Sweden
1898	H. Grenander, Sweden	1930-36	Karl Schafer, Austria
1899-1900	Gustav Hugel, Austria	1937-38	Felix Kaspar, Austria
1901-05	Ulrich Salchow, Sweden	1939	Graham Sharp, England
1906	Gilbert Fuchs, Germany	1940-46	No competition
1907-11	Ulrich Salchow, Sweden	1947	Hans Gerschwiler, Switzerland
1912-13	Fritz Kachler, Austria	1948-52	Richard Button, United States
1914	Gosta Sandahl, Sweden	1953-56	Hayes Jenkins, United States
1915-21	No competition	1957-58	David Jenkins, United States
1922	Gillis Grafstrom, Sweden	WOMEN	
1923	Fritz Kachler, Austria	1906-07	Madge Syers, England
1924	Gillis Grafstrom, Sweden	1908-11	Lily Kronberger, Hungary
		1912-14	Meray Horvath, Hungary
		1915-21	No competition
		1922-26	Mrs. Szabo Plank, Austria
		1927-36	Sonja Henie, Norway
		1937	Cecilia Colledge, England
		1938-39	Megan Taylor, England
		1940-46	No competition
		1947-48	Barbara Ann Scott, Canada
		1949-50	Aja Vrzanova, Czechoslovakia
		1951	Jeannette Altwegg, England
		1952	Jacqueline du Bief, France
		1953	Tenley Albright, United States
		1954	Gundi Busch, Germany
		1955	Tenley Albright, United States
		1956-58	Carol Heiss, United States

United States Champions

MEN			
1914	Norman Scott	1942	Bobby Specht
1915-17	No competition	1943	Arthur Vaughn, Jr.
1918	Nathaniel Niles	1944-45	No competition
1919	No competition	1946-52	Richard Button
1920-24	Sherwin Badger	1953-56	Hayes Jenkins
1925	Nathaniel Niles	1957-58	David Jenkins
1926	C. I. Christenson	WOMEN	
1927	Nathaniel Niles	1914	Theresa Weld
1928-34	Roger Turner	1915-17	No competition
1935-39	Robin Lee	1918	Mrs. R. S. Beresford
1940-41	Eugene Turner	1919	No competition
		1920	Theresa Weld
		1921-24	Mrs. Theresa Weld Blanchard
		1925-27	Beatrice Loughran
		1928-33	Maribel Vinson
		1934	Suzanne Davis
		1935-37	Maribel Vinson
		1938-40	Joan Tozzer
		1941	Jane Vaughn
		1942	Mrs. Jane Vaughn Sullivan
		1943-48	Gretchen Merrill
		1949-50	Yvonne Sherman
		1951	Sonya Klopfer
		1952-56	Tenley Albright
		1957-58	Carol Heiss

Joe Louis' Title Fights

June 22, 1937*	Jim Braddock, Chicago.....	KO 8	Feb. 17, 1941	Gus Dorazio, Philadelphia.....	KO 2
Aug. 30, 1937	Tommy Farr, Yankee Stad.....	W 15	Mar. 21, 1941	Abe Simon, Detroit.....	KO 13
Feb. 23, 1938	Nathan Mann, Mad. Sq. Garden....	KO 3	Apr. 8, 1941	Tony Musto, St. Louis.....	KO 9
Apr. 1, 1938	Harry Thomas, Chicago.....	KO 5	May 23, 1941	Buddy Baer, Washington, D. C....	W disq. 7
June 22, 1938	Max Schmeling, Yankee Stad.....	KO 1	June 18, 1941	Billy Conn, Polo Grounds.....	KO 13
Jan. 25, 1939	John Henry Lewis, Mad. Sq. Garden	KO 1	Sept. 29, 1941	Lou Nova, Polo Grounds.....	KO 6
Apr. 17, 1939	Jack Roper, Los Angeles.....	KO 1	Jan. 9, 1942	Buddy Baer, Mad. Sq. Garden.....	KO 1
June 28, 1939	Tony Galento, Yankee Stad.....	KO 4	Mar. 27, 1942	Abe Simon, Mad. Sq. Garden.....	KO 6
Sept. 20, 1939	Bob Pastor, Detroit.....	KO 11	June 19, 1946	Billy Conn, Yankee Stad.....	KO 8
Feb. 9, 1940	Arturo Godoy, Mad. Sq. Garden.....	W 15	Sept. 18, 1946	Tami Mauriello, Yankee Stad.....	KO 1
Mar. 29, 1940	Johnny Paychek, Mad. Sq. Garden....	KO 2	Dec. 5, 1947	Joe Walcott, Mad. Sq. Garden.....	W 15
June 20, 1940	Arturo Godoy, Yankee Stad.....	KO 8	June 25, 1948	Joe Walcott, Yankee Stad.....	KO 11
Dec. 16, 1940	Al McCoy, Boston.....	KO 6	Sept. 27, 1950†	Ezzard Charles, Yankee Stad.....	L 15
Jan. 31, 1941	Red Burman, Mad. Sq. Garden.....	KO 5			

* Won title. † After announcing retirement as champion on Mar. 1, 1949, Louis returned to boxing and sought to regain title in bout with Charles.

Marciano Was Unbeaten as a Pro

Rocky Marciano, heavyweight boxing champion of the world and winner of each of his 49 fights as a professional, announced his retirement from the ring on April 27, 1956. He is the only heavyweight champion ever to retire without losing a professional fight or even boxing to a draw.

Marciano won the title on Sept. 23, 1952, in Philadelphia, by knocking out Joe Walcott in the 13th round. He defended his crown six times. His gross purses for his 49 professional bouts have been estimated at \$2,000,000.

Marciano was born in Brockton, Mass., on Sept. 1, 1924.

Of his 49 victories, the retired champion scored 43 by knockouts, more than half of them within three rounds.

These were Marciano's championship fights:

Sept. 23, 1952*	Joe Walcott, Philadelphia.....	KO 13
May 15, 1953	Joe Walcott, Chicago.....	KO 1
Sept. 24, 1953	Roland LaStarza, Polo Grounds....	KO 11
June 17, 1954	Ezzard Charles, Yankee Stad.....	W 15
Sept. 17, 1954	Ezzard Charles, Yankee Stad.....	KO 8
May 16, 1955	Don Cockell, San Francisco.....	KO 9
Sept. 21, 1955	Archie Moore, Yankee Stad.....	KO 9

* Won title.

ICE (SPEED) SKATING

WORLD RECORDS

Source: International Skating Union (I.S.U.).

MEN

Meters	Time	Recordholder and country	Where made	Date
500	0:40.2	Eugeny Grishin, U.S.S.R.	Lake Misurina, Italy	Jan. 22, 1956
	0:40.2	Eugeny Grishin, U.S.S.R.	Lake Misurina, Italy	Jan. 28, 1956
1,000	1:22.8	Eugeny Grishin, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 12, 1955
1,500	2:06.3	Juhani Jarvinen, Finland	Squaw Valley, Calif.	Mar. 1, 1955
3,000	4:40.2	Anton Huiskes, Holland	Davos, Switzerland	Jan. 24, 1953
5,000	7:45.6	Boris Shilkov, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 9, 1955
10,000	16:32.6	Hjalmar Andersen, Norway	Hamar, Norway	Feb. 10, 1952
All-around	184.638 pts.	Dimitry Sakunenko, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 9-10, 1955

WOMEN

500	0:45.6	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 11, 1955
1,000	1:33.4	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 12, 1955
1,500	2:25.5	Khalida Schegolewa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 30, 1953
3,000	5:13.8	Rimma Zhukowa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 23, 1953
5,000	9:01.6	Rimma Zhukowa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 24, 1953
All-around	203.299 pts.	Galina Romanova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 26-27, 1958

NATIONAL SENIOR AMATEUR RECORDS

(Made in competition)

Source: Amateur Skating Union of the United States.

MEN'S OUTDOOR

Event	Time	Holder	Place	Date
220 yd...	18.1	Robert Fitzgerald	Minneapolis	1/10/43
440 yd...	35.4	Charles Gorman	Lake Placid	2/14/27
	35.4	Ken Bartholomew	St. Paul	1/25/42
	35.4	Robert Fitzgerald	Minneapolis	2/15/42
880 yd...	1:14.2	Robert Fitzgerald	Minneapolis	1/7/45
1/4 mi...	1:55.8	Clas Thunberg	Saranac Lake	2/15/26
1 mi...	2:38.2	Clas Thunberg	Lake Placid	2/12/26
*1 mi...	2:29.7	Del Lamb	Oslo	2/19/48
2 mi...	5:33.8	Eddie Schroeder	Minneapolis	1/30/34
3 mi...	8:19.6	Ross Robinson	Lake Placid	2/14/30
5 mi...	14:30.4	Ross Robinson	Lake Placid	2/12/27

* Made on 400-meter track in Norway.

BEST TIMES BY AMERICANS
AT OLYMPIC DISTANCES

500 m...	41.3	William Carow	Lake Misurina	1/22/56
			Italy	
1,500 m...	2:15.2	Pat McNamara	Lake Misurina	1/30/56
			Italy	
5,000 m...	8:10.6	Pat McNamara	Lake Misurina	1/29/56
			Italy	
10,000 m...	17:45.9	Eddie Schroeder		

WOMEN'S OUTDOOR

220 yd...	20.2	Maddy Horn	Saranac Lake	2/11/39
		Pat Gibson	St. Paul	1/30/55
440 yd...	39.4	L. Neitzel	Minneapolis	2/3/39
880 yd...	1:24.8	J. Omelenchuk	St. Paul	2/1/59
1/4 mi...	2:17.0	Dot Franey	Minneapolis	1/16/37
1 mi...	3:04.5	J. Omelenchuk	St. Paul	2/1/59

MEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

Event	Time	Holder	Place	Date
220 yd...	18.0	F. Robson	Boston	1/13/11
1/4 mi...	23.8	C. Gorman	St. John*	3/1/27
440 yd...	36.8	C. Gorman	St. John*	2/27/25
880 yd...	1:15.6	B. O'Sickey	Pittsburgh	3/1/16
1/4 mi...	2:00.4	P. Johnston	Cleveland	3/2/28
1 mi...	2:41.2	Morris Wood-		
		F. Robson	Pittsburgh	2/13/04
1 1/2 mi...	4:25	Edmund Lamy	Cleveland	1/27/10
2 mi...	5:54.8	R. Heckenbach	St. Paul	1/30/37
3 mi...	8:58.8	P. Johnston	Pittsburgh	2/19/27
4 mi...	13:41.8	Joe Moore	Brooklyn	2/7/27
5 mi...	15:42.2	F. Stack	Chicago	2/8/30

* New Brunswick, Canada.

FOR TRACKS 13 LAPS AND OVER

440 yd...	39.0	Robert Olson	Edmonton	4/23-25/45
880 yd...	1:20.4	Edgar Dame	Edmonton	4/25/53
1/4 mi...	2:06.2	E. Babayan	Colo. Springs	2/18/50
1 mi...	2:49.5	Edgar Dame	Edmonton	4/23-25/53
2 mi...	6:02.3	Edgar Dame	E. Lansing	3/28-29/52

WOMEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

220 yd...	21.6	Dot Franey	St. Paul	2/15/36
1/4 mi...	31.0	Dot Franey	St. Louis	2/25/33
440 yd...	41.4	Jean Ashworth	Champaign	3/14/39
880 yd...	1:26.2	Jean Ashworth	Champaign	3/15/39
1/4 mi...	2:16.8	Jean Ashworth	Champaign	Mar. '57
1 mi...	3:10.2	J. Omelenchuk	Champaign	3/9/58

FOR TRACKS 13 LAPS AND OVER

440 yd...	42.0	B. M. DeSchepper	Edmonton	4/23-25/53
1/4 mi...	1:26.4	B. M. DeSchepper	Milwaukee	3/5-6/55
1/2 mi...	2:17.3	Pat Underhill	Milwaukee	3/5-6/55
1 mi...	3:07.2	Pat Underhill	Edmonton	4/23-25/53

ICE HOCKEY

ICE HOCKEY, by birth and upbringing a Canadian game, is an offshoot of field hockey. Some historians state that the first ice hockey game was played in Montreal in December, 1879, between two teams composed almost exclusively of McGill University students, but others assert that Kingston, Ont., or Halifax, N. S., were scenes of earlier hockey games. In the Montreal game of 1879 there were fifteen players on a side and they used an assortment of crude sticks to keep the puck in motion. Early rules allowed nine men on a side but the number was reduced to seven in 1886 and finally reduced to six, the standard of today.

The first governing body of the sport was the Amateur Hockey Association of Canada, organized in 1887. In the winter of 1894-95 a group of college students from the United States visited Canada, saw hockey played, became enthused over the game and introduced it as a winter sport when they returned home. This was the

start of hockey in the United States. The first professional league was the International Hockey League that operated, strangely enough, not in Canada but in northern Michigan in 1904-06 and included as players such famous stars as Cyclone Taylor and Hod Stuart, later included in the Hockey Hall of Fame.

Until 1910, professionals and amateurs were allowed to play together on "mixed teams," but this arrangement ended with the formation of the first "big league," the National Hockey Association, in eastern Canada in 1910. The Pacific Coast League, to provide professional hockey in the West, was organized in 1911 with Seattle (and later other American cities) included in the circuit. The National Hockey League replaced the National Hockey Association in 1917. Boston, in 1924, was the first American city to join that circuit. The Stanley Cup, top trophy of hockey, was competed for by "mixed teams" from 1894 to 1910, thereafter by professionals.

Professional Statistics STANLEY CUP WINNERS

Emblematic of world professional championship.

1894—Montreal A. A. A	1910—Montreal Wanderers	1927—Ottawa Senators	1944—Montreal Canadiens
1895—Montreal Victorias	1911—Ottawa Senators	1928—N. Y. Rangers	1945—Toronto Maple Leafs
1896—Winnipeg Victorias	1912—Quebec Bulldogs	1929—Boston Bruins	1946—Montreal Canadiens
1897—Montreal Victorias	1913—Quebec Bulldogs	1930—Montreal Canadiens	1947—Toronto Maple Leafs
1898—Montreal Victorias	1914—Toronto	1931—Montreal Canadiens	1948—Toronto Maple Leafs
1899—Montreal Victorias	1915—Vancouver Millionaires	1932—Toronto Maple Leafs	1949—Toronto Maple Leafs
1900—Montreal Shamrocks	1916—Montreal Canadiens	1933—N. Y. Rangers	1950—Detroit Red Wings
1901—Winnipeg Victorias	1917—Seattle Metropolitans	1934—Chicago Black Hawks	1951—Toronto Maple Leafs
1902—Montreal A. A. A.	1918—Toronto Arenas	1935—Montreal Maroons	1952—Detroit Red Wings
1903—Ottawa Silver Seven	1919—Series unfinished†	1936—Detroit Red Wings	1953—Montreal Canadiens
1904—Ottawa Silver Seven	1920—Ottawa Senators	1937—Detroit Red Wings	1954—Detroit Red Wings
1905—Ottawa Silver Seven	1921—Ottawa Senators	1938—Chicago Black Hawks	1955—Detroit Red Wings
1906—Montreal Wanderers	1922—Toronto St. Patricks	1939—Boston Bruins	1956—Montreal Canadiens
1907—Kenora Thistles	1923—Ottawa Senators	1940—N. Y. Rangers	1957—Montreal Canadiens
1907—Mont. Wanderers*	1924—Montreal Canadiens	1941—Boston Bruins	1958—Montreal Canadiens
1908—Montreal Wanderers	1925—Victoria Cougars	1942—Toronto Maple Leafs	
1909—Ottawa Senators	1926—Montreal Maroons	1943—Detroit Red Wings	

* March.

† The Montreal Canadiens and Seattle, P.C.H.L. champions, had played five games at Seattle, Wash., when an influenza epidemic (which took the life of Joe Hall of the Canadiens) caused the Department of Health to stop the series. Each team won two games, with one contest ending in a tie.

MOST VALUABLE PLAYER

The Hart Trophy

Awarded annually to the player voted most valuable to his team in the regular N. H. L. season.

1924	Frank Nighbor, Ottawa	1942	Tom Anderson, New York Americans
1925	Billy Burch, Hamilton	1943	Bill Cowley, Boston
1926	Nels Stewart, Montreal Maroons	1944	Babe Pratt, Toronto
1927	Herb Gardiner, Montreal Canadiens	1945	Elmer Lach, Montreal Canadiens
1928	Howie Morenz, Montreal Canadiens	1946	Max Bentley, Chicago
1929	Roy Worters, New York Americans	1947	Maurice Richard, Montreal Canadiens
1930	Nels Stewart, Montreal Maroons	1948	Buddy O'Connor, New York Rangers
1931-32	Howie Morenz, Montreal Canadiens	1949	Sid Abel, Detroit
1933	Eddie Shore, Boston	1950	Chuck Rayner, New York Rangers
1934	Aurel Joliat, Montreal Canadiens	1951	Milt Schmidt, Boston
1935-36	Eddie Shore, Boston	1952-53	Gordon Howe, Detroit
1937	Babe Siebert, Montreal Canadiens	1954	Al Rollins, Chicago
1938	Eddie Shore, Boston	1955	Ted Kennedy, Toronto
1939	Toe Blake, Montreal Canadiens	1956	Jean Beliveau, Montreal Canadiens
1940	Ebbie Goodfellow, Detroit	1957-58	Gordon Howe, Detroit
1941	Bill Cowley, Boston		

SOCCER

Source: Flannery News Bureau of New York.

National Challenge Cup

Emblematic of U. S. Championship
(Senior amateur and professional elevens)

1914	Brooklyn (N. Y.) Field Club
1915-16	Bethlehem (Pa.) Steel Co. F. C.
1917	Fall River (Mass.) Rovers
1918-19	Bethlehem (Pa.) Steel Co. F. C.
1920	Ben Miller F. C., St. Louis, Mo.
1921	Robins Dry Dock F. C., Brooklyn, N. Y.
1922	Scullin Steel F. C., St. Louis, Mo.
1923	Paterson (N. J.) F. C.
1924	Fall River (Mass.) F. C.
1925	Shawsheen S. C., Andover, Mass.
1926	Bethlehem (Pa.) Steel Co. F. C.
1927	Fall River (Mass.) F. C.
1928	New York Nationals S. C.
1929	Hakoah All-Stars, New York
1930-31	Fall River (Mass.) F. C.
1932	New Bedford (Mass.) F. C.
1933-34	Stix, Baer & Fuller F. C., St. Louis, Mo.
1935	Central Breweries S. C., St. Louis, Mo.
1936	First German American S. C., Philadelphia
1937	New York Americans S. C.
1938	Sparta A. B. A., Chicago, Ill.
1939	St. Mary's Celtic S. C., New York
1940	No official champion*
1941	Pawtucket (R. I.) F. C.
1942	Gallatin S. C., Pittsburgh
1943-44	Brooklyn (N. Y.) Hispano S. C.
1945	Brookhattan S. C., New York
1946	Vikings, Chicago
1947	Ponta Delgada F. C., Fall River, Mass.
1948	Joe Simpkins S. C., St. Louis, Mo.
1949	Morgan (Pa.) S. C.
1950	Joe Simpkins S. C., St. Louis, Mo.
1951	German-Hungarian S. C., New York
1952	Harmarville (Pa.) S. C.
1953	Chicago Falcons
1954	New York Americans
1955	Eintracht S. C., New York
1956	Harmarville (Pa.) Hurricanes
1957	Kutis, St. Louis
1958	Los Angeles Kickers

* Finalists: Baltimore (Md.) S. C. and Sparta A. B. A., Chicago, Ill.

National Amateur
Challenge Cup

1923	No official champion*
1924	Fleisher Yarn F. C., Philadelphia
1925	Toledo (Ohio) F. C.
1926	Defenders F. C., New Bedford, Mass.
1927	Heidelberg (Pa.) F. C.
1928	No official champion†
1929	Heidelberg (Pa.) F. C.
1930	Raffies F. C., Fall River, Mass.
1931	Goodyear F. C., Akron, Ohio
1932	Shamrock S. C., Cleveland, Ohio
1933	German American S. C., Philadelphia
1934	German American S. C., Philadelphia
1935	W. W. Riehl S. C., Castle Shannon, Pa.
1936	First German S. C., Brooklyn, N. Y.
1937	Highlander F. C., Trenton, N. J.
1938	Ponta Delgada F. C., Fall River, Mass.
1939	St. Michael's A. C., Fall River, Mass.
1940	Morgan-Strasser S. C., Morgan, Pa.
1941	Fall River (Mass.) S. C.
1942	Fall River (Mass.) S. C.
1943	Morgan-Strasser S. C., Morgan, Pa.
1944	Eintracht S. C., New York
1945	Eintracht S. C., New York
1946	Ponta Delgada F. C., Fall River, Mass.
1947	Ponta Delgada F. C., Fall River, Mass.
1948	Ponta Delgada F. C., Fall River, Mass.
1949	Elizabeth (N. J.) Sport Club
1950	Ponta Delgada F. C., Fall River, Mass.
1951	German-Hungarian S. C., New York
1952	St. Louis Raiders
1953	Ponta Delgada, Fall River, Mass.
1954	Beadling (Pa.) S. C.
1955	Heidelberg (Pa.) Tornados
1956	Kutis, St. Louis
1957	Kutis, St. Louis
1958	Kutis, St. Louis

* Medals to semifinalists: Fleisher Yarn F. C., Philadelphia; Roxbury (Mass.) F. C.; Jeannette (Pa.) F. C.; Swedish American A. A., Chicago, Ill. † Finalists: Powers-Hudson-Essex F. C., Fall River, Mass.; and Swedish American A. C., Detroit, Mich.

CYCLING

Source: Otto Elsele, Racing Editor, *American Bicyclist*.

NATIONAL AMATEUR CHAMPIONS

Year	Winner	Where held	Year	Winner	Where held
1921	Arthur Niemi, New York	Washington, D. C.	1941	Marvin Thomson, Illinois	Pasadena, Calif.
1922	Carl Hambacher, New Jersey	Atlantic City	1945	Ted Smith, New York	Chicago
1923	Charles Barclay, California	Chicago	1946	Don Hester, California	Columbus
1924	Charlie Winter, New York	Buffalo	1947	Ted Smith, New York	Philadelphia
1925	Edward Merkner, Illinois	St. Louis	1948	Ted Smith, New York	Kenosha, Wis.
1926	Edward Merkner, Illinois	Philadelphia	1949	James Lauf, Maryland	San Diego, Calif.
1927	Jimmy Waltnour, Jr., New York	Louisville	1950	Robert Piarr, Wisconsin	New Brunswick
1928	R. J. Connor, District of Columbia	Kenosha, Wis.	1951	Gus Gatto, California	Columbus
1929	Sergio Matteini, New York	Newark, N. J.	1952	Steve Hromjak, Ohio	New Brunswick
1930	Bobby Thomas, Wisconsin	Kenosha, Wis.	1953	Ronald Rhoads, California	St. Louis
1935	Cecil Hursey, Georgia	Atlantic City	1954	Jack Disney, California	Minneapolis
1936	Jackie Simes, New Jersey	St. Louis	1955	Jack Disney, California	New York
1937	Charles Bergna, New Jersey	Buffalo	1956	Jack Disney, California	Orlando, Fla.
1939	Marlin Deras, California	Columbus	1957	Jack Disney, California	Kenosha, Wis.
1940	Furman Kugler, New Jersey	Detroit	1958	Jack Disney, California	Newark, N. J.

FENCING

Source: Amateur Fencers League of America.

National Champions

FOIL

1892	W. Scott-O'Connor
1893	William Heintz
1894	Charles Bothner
1895	Albertson Van Zo Post
1896	G. Kavanaugh
1897	Charles Bothner
1898	No competition
1899	G. Kavanaugh
1900	F. Townsend
1901	Charles Tatham
1902	J. P. Parker
1903	F. Townsend
1904-05	Charles Bothner
1906	S. D. Breckinridge
1907	C. Waldbott
1908	W. L. Bowman
1909	O. A. Dickinson
1910	G. K. Bainbridge
1911	George Breed
1912	Sherman Hall
1913	P. J. Meylan
1914	S. D. Breckinridge
1915	O. A. Dickinson
1916	A. E. Sauer
1917	Sherman Hall
1918	No competition
1919-20	Sherman Hall
1921	F. W. Honeycutt
1922	H. M. Raynor
1923	R. Peroy
1924	Leo Nunes
1925-28	George Calnan
1929	Joseph Levis
1930-31	George Calnan
1932-33	Joseph Levis
1934	Hugh Alessandrini
1935	Joseph Levis
1936	Hugh Alessandrini
1937	Joseph Levis
1938	Dernell Every
1939	Norman Lewis
1940	Dernell Every
1941	Dean Cetrulo
1942-43	Warren Dow
1944	Alfred Snyder
1945	Dernell Every
1946	Jose de Capriles
1947	Dean Cetrulo
1948	Nathaniel Lubell
1949	Daniel Bukantz
1950-51	Silvio Giolito
1952-53	Daniel Bukantz
1954	Joseph Levis
1955	Albert Axelrod
1956	Sewall Shurtz
1957	Daniel Bukantz
1958	Albert Axelrod

EPEE

1892	Barnard O'Connor
1893	Graeme Hammond
1894	R. O. Haubold
1895	Charles Bothner
1896	Albertson Van Zo Post
1897	Charles Bothner
1898	No competition
1899	M. Diaz

1900	W. D. Lyon
1901-03	Charles Tatham
1904	Charles Bothner
1905	W. Scott-O'Connor
1906	W. Grebe
1907	W. D. Lyon
1908	Paul Benzenberg
1909-10	A. de la Poer
1911	George Breed
1912	Albertson Van Zo Post
1913	A. E. Sauer
1914	F. W. Allen
1915	J. A. MacLaughlin
1916	William Russell
1917	Leo Nunes
1918	No competition
1919	William Russell
1920	R. W. Dutcher
1921	C. R. McPherson
1922	Leo Nunes
1923	George Calnan
1924	Leo Nunes
1925	William Russell
1926	Leo Nunes
1927	Harold Van Buskirk
1928	Leo Nunes
1929	F. S. Righeimer
1930	M. Pasche
1931	Miguel de Capriles
1932	Leo Nunes
1933-34	Gustave Heiss
1935	Thomas Sands
1936	Gustave Heiss
1937	Thomas Sands
1938	Jose de Capriles
1939	Loyal Tingley
1940	Fred Seibert
1941	Gustave Heiss
1942	Henrique Santos
1943	Robert Driscoll
1944	Miguel de Capriles
1945	Max Gilman
1946	Charles Wolfe
1947	James Strauch
1948-50	Norman Lewis
1951	Jose de Capriles
1952	Abelardo Menendez
1953	Donald Thompson
1954	Sewall Shurtz
1955-56	Abram Cohen
1957-58	Richard Berry

SABER

1892	R. O. Haubold
1893-94	Graeme Hammond
1895-97	Charles Bothner
1898	No competition
1899	G. Kavanaugh
1900	J. L. Ervin
1901-03	Albertson Van Zo Post
1904	A. G. Anderson
1905	K. B. Johnson
1906-07	A. G. Anderson
1908	G. W. Postgate
1909	A. E. Sauer
1910	J. T. Shae
1911	A. G. Anderson

1912	C. A. Bill
1913	A. G. Anderson
1914	W. Von Blejenburgh
1915-16	Sherman Hall
1917	Arthur Lyon
1918	No competition
1919	Arthur Lyon
1920	Sherman Hall
1921	C. R. McPherson
1922	Leo Nunes
1923	L. M. Schoonmaker
1924	J. F. Gignoux
1925	Joseph Vince
1926	Leo Nunes
1927-28	Nickolas Muray
1929	Leo Nunes
1930	Norman Armitage
1931-33	John Huffman
1934-36	Norman Armitage
1937-38	John Huffman
1939-43	Norman Armitage
1944	Tibor Nyilas
1945	Norman Armitage
1946	Tibor Nyilas
1947	James Flynn
1948	Dean Cetrulo
1949	Umberto Martino
1950-53	Tibor Nyilas
1954	George Worth
1955	Richard Dyer
1956	Tibor Nyilas
1957-58	Daniel Magay

WOMEN'S FOIL

1912	A. Baylis
1913	Mrs. W. H. Dewar
1914	M. Stimson
1915	Jessie Pyle
1916	Mrs. C. H. Voorhees
1917	Florence Walton
1918-19	No competition
1920-23	Adeline Gehrig
1924	Mrs. C. H. Hopper
1925-26	Mrs. Florence Schoonmaker
1927	S. Stern
1928	Marion Lloyd
1929	Mrs. Florence Schoonmaker
1930	Mrs. Harold Van Buskirk
1931	Marion Lloyd
1932-33	Dorothy Locke
1934-35	Helene Mayer
1936	Mrs. Joanne de Tuscan
1937-39	Helene Mayer
1940	Helena Mroczowska
1941-42	Helene Mayer
1943	Helena Mroczowska
1944	Madaline Dalton
1945	Maria Cerra
1946	Helene Mayer
1947-48	Mrs. Helena Mroczowska Dow
1949	Polly Craus
1950-51	Janice Lee York
1952	Mrs. Maxine Mitchell
1953	Paula Sweeney
1954-55	Mrs. Maxine Mitchell
1956-57	Mrs. Janice Lee Romary
1958	Mrs. Maxine Mitchell

SWIMMING

THERE IS THE ancient tale of Leander of Abydos swimming the Hellespont nightly to call on Helen of Sestos but nobody kept the time on his trips. However, Lord Byron swam one leg of the old Leander course, Sestos to Abydos, on May 3, 1810, in 1 hour 10 minutes. The famous British poet was a noted swimmer and once, in an endurance trial at Venice, was in the water for 4 hours 10 minutes. Distance swimming was the early type of competition. Captain Matthew Webb achieved fame by being the first to swim the English Channel—Dover to Calais—in August, 1875, in 21 hours 45 minutes. Many other swimmers, men and women, have conquered the

Channel since that time. Gertrude Ederle, of New York City, was the first woman to accomplish the feat. Miss Ederle swam the Channel Aug. 6, 1926, in 14 hours 34 minutes, breaking the existing record at that time. Since then the record has been lowered by a number of men and women.

Regular competition at short as well as long distances and indoor as well as outdoor came with the development of such organizations as the Amateur Athletic Union and the building of indoor and outdoor swimming pools. Swimming has been on the Olympic program since the start of the modern Olympic Games at Athens in 1896.

WORLD RECORDS

In a move to end confusion over world records, the International Amateur Swimming Federation (F.I.N.A.) began in 1957 to recognize only those marks which are made in 50-meter or 55-yard pools. As of May 1, 1957, all previously recognized records established in pools of other lengths were wiped out. Some of these were replaced when the F.I.N.A. certified new records later in 1957, and again in 1958 and 1959, but others continued open.

Where no record yet has been authorized for a standard distance, the table of world records below lists the mark as "vacant." The time given in such a case is the slowest the F.I.N.A. will consider for record application for the event.

Men

FREE STYLE

Distance	Record	Holder	Country	Where Made	Date
100 meters.....	0:54.6.....	John Devitt.....	Australia.....	Brisbane.....	Jan. 28, 1957
110 yards.....	0:55.1.....	John Devitt.....	Australia.....	Sydney.....	Feb. 7, 1959
200 meters.....	2:01.5.....	Tsuyoshi Yamanaka.....	Japan.....	Osaka.....	July 26, 1959
220 yards.....	2:02.2.....	Jon Konrads.....	Australia.....	Sydney.....	Jan. 16, 1959
400 meters.....	4:16.6.....	Tsuyoshi Yamanaka.....	Japan.....	Osaka.....	July 26, 1959
440 yards.....	4:19.0.....	Jon Konrads.....	Australia.....	Sydney.....	Feb. 7, 1959
800 meters.....	8:59.6.....	Jon Konrads.....	Australia.....	Sydney.....	Jan. 10, 1959
880 yards.....	8:59.6.....	Jon Konrads.....	Australia.....	Sydney.....	Jan. 10, 1959
1,500 meters.....	17:28.7.....	Jon Konrads.....	Australia.....	Melbourne.....	Feb. 22, 1958
1,650 yards.....	17:28.7.....	Jon Konrads.....	Australia.....	Melbourne.....	Feb. 22, 1958

BREASTSTROKE

100 meters.....	1:11.5.....	W. Minaschkin.....	U.S.S.R.....	Leipzig.....	Sept. 15, 1957
110 yards.....	1:12.4.....	Terry Gathercole.....	Australia.....	Townsville.....	June 28, 1958
200 meters.....	2:36.5.....	Terry Gathercole.....	Australia.....	Townsville.....	June 28, 1958
220 yards.....	2:36.5.....	Terry Gathercole.....	Australia.....	Townsville.....	June 28, 1958

BUTTERFLY

100 meters.....	1:00.1.....	Takashi Ishimoto.....	Japan.....	Los Angeles.....	June 29, 1958
110 yards.....	1:03.2.....	Tim Jecko.....	United States.....	New London, Conn.....	Aug. 14, 1958
200 meters.....	2:16.4.....	Mike Troy.....	United States.....	Los Altos, Calif.....	July 11, 1959
220 yards.....	(vacant—2:20.0)				

BACKSTROKE

100 meters.....	1:01.5.....	John Monckton.....	Australia.....	Melbourne.....	Feb. 15, 1958
110 yards.....	1:01.5.....	John Monckton.....	Australia.....	Melbourne.....	Feb. 15, 1958
200 meters.....	2:17.8.....	Frank McKinney.....	United States.....	Osaka.....	July 25, 1959
220 yards.....	2:18.4.....	John Monckton.....	Australia.....	Melbourne.....	Feb. 18, 1958

INDIVIDUAL MEDLEY

400 meters.....	5:08.8.....	Ian Black.....	Great Britain.....	Cardiff.....	June 6, 1959
440 yards.....	5:08.8.....	Ian Black.....	Great Britain.....	Cardiff.....	June 6, 1959

FREE STYLE RELAYS

Distance	Record	Holder	Country	Where Made	Date
400 meters	3:44.4	National Team (Eiton Foilett, Lance Larson, Jeff Farrell, Joe Alkire)	United States	Tokyo	July 21, 1959
440 yards	3:47.3	National Team (Gary Chapman, Jon Konrads, Geoffrey Snipton, John Devitt)	Australia	Sydney	Feb. 9, 1958
800 meters	8:18.7	National Team (Tsuyosni Yamanaka, Makoto Fukui, Katsunari Kenjo, Tatsuo Fujimoto)	Japan	Osaka	July 26, 1959
880 yards	8:24.5	National Team (Jon Konrads, Graham Hamilton, John Devitt, Gary Chapman)	Australia	Sydney	Mar. 5, 1958

MEDLEY RELAYS

(Back, Breast, Butterfly, Free Style)

400 meters	4:10.4	National Team (John Monckton, Terry Gathercole, Brian Wilkinson, John Devitt)	Australia	Osaka	Aug. 22, 1958
440 yards	4:14.2	National Team (John Monckton, Terry Gathercole, Brian Wilkinson, John Devitt)	Australia	Cardiff	July 25, 1958

Women

FREE STYLE

100 meters	1:01.2	Dawn Fraser	Australia	Schiedam	Aug. 10, 1958
110 yards	1:01.4	Dawn Fraser	Australia	Cardiff	July 21, 1958
200 meters	2:14.7	Dawn Fraser	Australia	Melbourne	Feb. 22, 1958
220 yards	2:14.7	Dawn Fraser	Australia	Melbourne	Feb. 22, 1958
400 meters	(vacant—4:47.2)				
440 yards	4:48.6	Lorraine Crapp	Australia	Sydney	Oct. 20, 1956
800 meters	10:11.4	Ilsa Konrads	Australia	Hobart	Feb. 19, 1959
880 yards	10:11.4	Ilsa Konrads	Australia	Hobart	Feb. 19, 1959
1,500 meters	19:25.7	Ilsa Konrads	Australia	Sydney	Jan. 14, 1959
1,650 yards	19:25.7	Ilsa Konrads	Australia	Sydney	Jan. 14, 1959

BREASTSTROKE

100 meters	1:19.6	Karin Beyer	East Germany	Leipzig	Sept. 12, 1958
110 yards	(vacant—1:21.6)				
200 meters	2:50.3	Anita Lonsbrough	Great Britain	Waalwijk	July 25, 1959
220 yards	2:52.5	Ada den Haan	Netherlands	Blackpool	May 18, 1957

BUTTERFLY

100 meters	1:09.1	Nancy Ramey	United States	Chicago	Sept. 2, 1959
110 yards	1:11.2	Becky Collins	United States	Redding, Calif.	July 18, 1959
200 meters	2:37.0	Becky Collins	United States	Redding, Calif.	July 19, 1959
220 yards	2:37.0	Becky Collins	United States	Redding, Calif.	July 19, 1959

BACKSTROKE

100 meters	1:11.4	Carin Cone	United States	Chicago	Sept. 6, 1959
110 yards	1:11.9	Judy Grinham	Great Britain	Cardiff	July 23, 1958
200 meters	2:37.1	Satoko Yanaka	Japan	Tokyo	July 12, 1959
220 yards	2:37.9	Carin Cone	United States	Redding, Calif.	July 17, 1959

INDIVIDUAL MEDLEY

400 meters	5:40.2	Sylvia Ruuska	United States	Redding, Calif.	July 17, 1959
440 yards	5:40.2	Sylvia Ruuska	United States	Redding, Calif.	July 17, 1959

FREE STYLE RELAYS

400 meters	4:17.1	National Team (Dawn Fraser, Faith Leech, Sandra Morgan, Lorraine Crapp)	Australia	Melbourne	Dec. 6, 1956
440 yards	4:17.4	National Team (Dawn Fraser, Sandra Morgan, Lorraine Crapp, Alva Colquhoun)	Australia	Cardiff	July 19, 1958

MEDLEY RELAYS

(Back, Breast, Butterfly, Free Style)

400 meters	4:44.6	National Team (Carin Cone, Anne Bancroft, Becky Collins, Chris von Saltza)	United States	Chicago	Sept. 6, 1959
440 yards	4:52.9	National Team (Lenie de Nijs, Ada den Haan, Attie Voorbij, Cockie Gastelaars)	Netherlands	Budapest	Sept. 5, 1958

Olympic Emblem Protected by Law

Federal law forbids the use of the Olympic emblem or the words, "Olympic" and "Olympiad" for business or advertising purposes or for theatrical or athletic per-

formances to any persons, corporations, or associations other than the United States Olympic Association, its subordinate organizations, and its employees and officers.

DOG SHOWS

Westminster Kennel Club Exhibition

Year	Best in show	Breed	Owner
1907-09	Ch. Warren Remedy	Fox terrier, smooth	Winthrop Rutherford
1910	Ch. Sabine Rarebit	Fox terrier, smooth	Sabine Kennels
1911	Ch. Tickle Em Jock	Scottish terrier	A. Albright, Jr.
1912	Ch. Kenmore Sorceress	Airedale terrier	William P. Wolcott
1913	Ch. Strathway Prince Albert	Bulldog	Alex H. Stewart
1914	Ch. Brentwood Hero	Old English sheep dog	Mrs. Tyler Morse
1915-16	Ch. Matford Vic	Fox terrier, wire	George W. Quintard
1917	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1918	Ch. Haymarket Faultless	Bull terrier	R. H. Elliot
1919	Ch. Briergate Bright Beauty	Airedale terrier	G. L. L. Davis
1920	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1921	Ch. Midkiff Seductive	Cocker spaniel	William T. Payne
1922	Ch. Boxwood Barkentine	Airedale terrier	Frederic C. Hood
1924	Ch. Barberryhill Bootlegger	Sealyham terrier	Bayard Warren
1925	Ch. Governor Moscow	Pointer	Robert F. Maloney
1926	Ch. Signal Circuit	Fox terrier, wire	Halleston Kennels
1927	Ch. Pinegrade Perfection	Sealyham terrier	Frederic C. Brown
1928	Ch. Talavera Margaret	Fox terrier, wire	R. M. Lewis
1929	Land Loyalty of Bellhaven	Collie	Mrs. Florence B. Ilch
1930-31	Ch. Pendley Calling of Blarney	Fox terrier, wire	John G. Bates
1932	Ch. Nancolleth Markable	Pointer	Giralda Farms
1933	Ch. Warland Protector of Shelterock	Airedale terrier	S. M. Stewart
1934	Ch. Flornell Spicy Bit of Halleston	Fox terrier, wire	Halleston Kennels
1935	Ch. Nunsoe Duc de la Terrace of Blakeen	Poodle	Blakeen Kennels
1936	Ch. St. Margaret Magnificent of Clairedale	Sealyham terrier	Clairedale Kennels
1937	Ch. Flornell Spicy Piece of Halleston	Fox terrier, wire	Halleston Kennels
1938	Daro of Maridor	English setter	Maridor Kennels
1939	Ferry v. Raufhelsen of Giralda	Doberman pinscher	Giralda Farms
1940-41	Ch. My Own Brucie	Cocker spaniel	H. E. Mellenthin
1942	Ch. Wolvey Pattern Edgerstoune	West Highland terrier	Mrs. John G. Winant
1943	Ch. Pitter Patter of Piperscroft	Miniature poodle	Mrs. P. H. B. Frelinghuysen
1944	Ch. Flornell Rare-Bit of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1945	Shieling's Signature	Scottish terrier	Mr. and Mrs. T. H. Sneathen
1946	Ch. Hetherington Model Rhythm	Fox terrier, wire	Mr. and Mrs. T. H. Carruthers III
1947	Ch. Warlord of Mazelaine	Boxer	Mr. and Mrs. R. C. Kettles, Jr.
1948	Ch. Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Mazelaine's Zazarac Brandy	Boxer	Mr. and Mrs. John P. Wagner
1950	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1951	Ch. Bang Away of Sirrah Crest	Boxer	Dr. and Mrs. R. C. Harris
1952-53	Ch. Rancho Dobe's Storm	Doberman pinscher	Mr. and Mrs. Len Carey
1954	Ch. Carmor's Rise and Shine	Cocker spaniel	Mrs. Carl E. Morgan
1955	Ch. Kippax Fearnought	Bulldog	Dr. John A. Saylor
1956	Ch. Wilber White Swan	Toy poodle	Bertha Smith
1957	Ch. Shirkhan of Grandeur	Afghan	Sunny Shay-Dorothy Chenade
1958	Ch. Puttencove Promise	Standard poodle	Mr. and Mrs. George Putnam

Morris and Essex Kennel Club Exhibition

1929	Ch. Little Emir	Pomeranian	Mrs. V. Matta
1930	Ch. Weltona Frizzette of Wildoaks	Fox terrier, wire	Mr. and Mrs. R. C. Bondy
1931	Ch. Fionne v Loheland of Walnut Hall	Great dane	Harkness Edwards
1932	Ch. Lone Eagle of Earlsmoor	Fox terrier, wire	Dr. and Mrs. S. Milbank
1933	Eppingeville of Blarney	Fox terrier, wire	John G. Bates
1934	Ch. Gunside Babs of Hollybourne	Sealyham terrier	S. L. Froelich
1935	Ch. Milson O'Boy	Irish setter	Mrs. Cheever Porter
1936	Ch. Mr. Reynal's Monarch	Harrier	Amory L. Haskell
1937	Ch. Sturdy Max	English setter	Maridor Kennels
1938	Ch. Ideal Weather	Old English sheep dog	Leonard Collins
1939	Ch. My Own Brucie	Cocker spaniel	H. E. Mellenthin
1940	Ch. Blakeen Jung Frau	Poodle, standard	Blakeen Kennels
1941	Ch. Nornay Saddler	Fox terrier, smooth	Wissaboo Kennels
1946	Ch. Benbow's Beau	Cocker spaniel	Robert A. Gusman
1947-48	Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1950	Ch. Tyrone Farm Clancy	Irish setter	Jack Spear
1951	Ch. Rock Falls Colonel	English setter	William T. Holt
1952	Ch. Wyretex Wyns Traveller of Truote	Fox terrier, wire	Mrs. Leonard Smit
1953	Ch. Topflight Template of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1955	Ch. Baroque of Quality Hill	Boxer	Mr. and Mrs. John P. Wagner
1956	Ch. Roadcoach Roadster	Dalmatian	Mrs. Sydney K. Allman, Jr.
1957	Ch. Fircot L'Ballerine of Maryland	Miniature Poodle	Mr. and Mrs. Saunders Meade

WORLD ALL-TACKLE FISHING RECORDS

Caught with Rod and Reel in Salt Water

Source: Anne H. Schiehl, International Game Fish Association.

Species	Lb., oz.	Length	Girth	Where caught	Year	Angler
Albacore.....	69	42"	32½"	St. Helena.....	1956	P. Allen
Amberjack.....	120-8	62"	40"	Kona, T. H.....	1955	C. W. McAlpin
Barracuda.....	103-4	66"	31½"	West End, Bahamas.....	1932	C. E. Benet
Bass, Calif. Black Sea.....	514	86"	82"	San Clemente, Calif.....	1955	J. Patterson
Bass, Calif. White Sea.....	83-12	65½"	34"	Baja California, Mex.....	1953	L. C. Baumgardner
Bass, Channel.....	83	52"	29"	Cape Charles, Va.....	1949	Zack Waters, Jr.
Bass, Sea.....	8	22"	19"	Nantucket Sound, Mass.....	1951	H. R. Rider
Bass, Giant Sea.....	551	100"	....	Galveston Bay, Texas.....	1937	G. Pangarakis
Bass, Striped.....	73	60"	30½"	Vineyard Sound, Mass.....	1913	C. B. Church
Blackfish (Tautog).....	21-6	31½"	23½"	Cape May, N. J.....	1964	R. N. Shearer
Bluefish.....	24-3	41"	22"	San Miguel, Azores.....	1953	M. da Silva Veloso
Bonito, Oceanic.....	39-15	39"	28"	Walker Cay, Bahamas.....	1952	F. Drowley
Cobia.....	102	70"	34"	Cape Charles, Va.....	1938	J. E. Stansbury
Cod.....	72	53"	34"	Rockport, Conn.....	1958	E. E. Belek
Dolphin.....	76	63"	....	Acapulco, Mexico.....	1957	R. G. Stotsbery
Drum, Black.....	94-4	51½"	42"	Cape Charles, Va.....	1957	James L. Johnson
Flounder, Summer.....	20	37"	32"	Oak Beach, N. Y.....	1948	F. H. Kessel
Flounder, Summer.....	20-7	37"	29½"	Long Island Sound, N. Y.....	1957	Mrs. M. Fredriksen
Flounder, Summer.....	20-2	34"	29½"	Montauk, N. Y.....	1958	G. F. Schwinzer
Kingfish.....	77	65"	29"	Bimini, Bahamas.....	1957	C. O. Potts
Marlin, Blue.....	756	168"	66"	San Juan, P. R.....	1956	Allen Sherman, Jr.
Marlin, Pacific Black.....	1560	174"	81"	Cabo Blanco, Peru.....	1953	A. C. Glassell, Jr.
Marlin, Silver.....	911	160"	76"	Kona, Hawaii.....	1957	Dale Scott
Marlin, Striped.....	692	161"	....	Balboa, California.....	1931	A. Hamann
Marlin, White.....	161	104"	33"	Miami, Florida.....	1938	L. F. Hooper
Pollack.....	40	47½"	28"	Rockport, Mass.....	1959	Walter F. Church
Roosterfish.....	100	54"	32"	Cabo Blanco, Peru.....	1954	M. Barrenechea
Sailfish, Atlantic.....	123	44"	32¾"	Walker Cay, Bahamas.....	1950	H. Teetor
Sailfish, Pacific.....	221	129"	....	Santa Cruz Is., Galapagos Is.....	1947	C. W. Stewart
Sawfish.....	754	187"	98½"	Bay of Panama.....	1959	Jack Wagner
Shark, Mako.....	1000	144"	....	Mayor Island, N. Z.....	1943	B. D. H. Ross
Shark, Porbeagle.....	271	98"	49"	Looe, Cornwall, England.....	1958	Mrs. Hetty Eathorne
Shark, Thresher.....	922	....	....	Bay of Islands, N. Z.....	1937	W. W. Dowding
Shark, Tiger.....	1422	163"	95"	Cape Moreton, Australia.....	1958	J. H. Robinson
Shark, White.....	2664	202"	114"	South Australia.....	1959	Alfred Dean
Snook (Robalo).....	50-8	55"	....	Gatun Spillway, Canal Zone.....	1944	J. W. Anderson
Swordfish.....	1182	179¾"	78"	Iquique, Chile.....	1953	L. E. Marron
Tarpon.....	283	86 3/5"	....	Lake Maracaibo, Venezuela.....	1956	M. Salazar
Tuna, Allison (Yellowfin).....	265	73"	53"	Makau, T. H.....	1937	J. W. Harvey
Tuna, Atlantic Big-Eyed.....	209-6	70"	46"	Madeira.....	1956	A. A. Ribeiro
Tuna, Blackfin.....	44-8	41½"	28½"	Capetown, South Africa.....	1957	G. B. Mercorio
Tuna, Bluefin.....	977	116"	94½"	St. Ann Bay, Nova Scotia.....	1950	D. M. Hodgson
Tuna, Pacific Big Eyed.....	435	93"	63½"	Cabo Blanco, Peru.....	1957	R. V. A. Lee
Weakfish.....	17-8	46"	19"	Mullica River, N. J.....	1944	A. Weisbecker, Jr.
Weakfish, Spotted.....	15-3	34½"	20½"	Fort Pierce, Fla.....	1949	C. W. Hubbard
Yellowtail.....	105-12½	65"	40"	Bahia de Topolobampo, Mexico.....	1955	M. A. Yant

Caught with Rod and Reel in Fresh Water

Source: Mary Ball, Field & Stream.

Black Bass, Largemouth.....	22-4	32½"	28½"	Montgomery Lake, Ga.....	1932	George W. Perry
Black Bass, Smallmouth.....	11-15	27"	21½"	Dale Hollow Lake, Ky.....	1955	David L. Hayes
Bluegill (Sunfish).....	4-12	15"	18½"	Ketona Lake, Ala.....	1920	T. S. Hudson
Carp.....	55-5	42"	31"	Clearwater Lake, Minn.....	1952	Frank J. Ledwein
Catfish, Channel.....	55	50"	27"	James River, S. D.....	1949	Roy A. Groves
Muskellunge.....	69-15	64¾"	31¾"	St. Lawrence River, N. Y.....	1957	Arthur Lawton
Perch, White.....	4-12	19½"	13"	Messalonskee Lake, Maine.....	1949	Mrs. Earl Small
Perch, Yellow.....	4-3½	....	....	Bordentown, New Jersey.....	1865	Dr. C. C. Abbot
Pickereel, Eastern chain.....	9-3	27"	....	Medford Lakes, N. J.....	1957	Frank McGovern
Pike, Northern.....	48-2	52½"	25"	Sacandaga Reservoir, N. Y.....	1940	Peter Dubuc
Salmon, Atlantic.....	79-2	....	....	Tanaelv, Norway.....	1928	Henrik Henriksen
Salmon, Chinook.....	83	....	....	Umpqua River, Oregon.....	1910	F. R. Steel
Salmon, Landlocked.....	22-8	36"	....	Sebago Lake, Maine.....	1907	Edward Blakely
Salmon, Silver.....	31	....	....	Oowichan Bay, B. C.....	1947	Mrs. Lee Hallberg
Trout, Brook.....	14-8	31½"	11½"	Nipigon River, Ontario.....	1916	Dr. W. J. Cook
Trout, Brown.....	39-8	....	....	Loch Awe, Scotland.....	1866	W. Muir
Trout, Dolly Varden.....	22	40½"	29¾"	Lake Pend Oreille, Idaho.....	1949	N. L. Higgins
Trout, Lake.....	63-2	51½"	32¾"	Lake Superior.....	1892	Hubert Hammers
Trout, Rainbow or Steelhead.....	37	40½"	28"	Lake Pend Oreille, Idaho.....	1947	Wes Hamlet
Walleye.....	22-4	36¾"	21"	Fort Erie, Ontario.....	1943	Patrick E. Noon

BILLIARDS

APPARENTLY nobody knows where billiards originated. Some trace the game back to ancient Greece or early Egyptian days; others insist it originated in France or England in medieval times. Shakespeare must have believed the Egyptian tale, because in *Antony and Cleopatra* he has Cleopatra saying: "Let's to billiards; come, Charmian." There is an illustration of Louis XIV of France playing billiards in 1694 and using a shovel-shaped stick to set the "cue ball" in motion, from which it is evident that the pointed cue was a later development.

Certainly the game was popular in England and on the Continent in the seven-

teenth and eighteenth centuries and early settlers in North America are supposed to have introduced the game here. How to apply "English" to a billiard ball was discovered by Jack Carr, an Englishman, in 1820. A Frenchman named Mingaud is credited with having invented the "draw" shot at about the same time and also to have devised leather tips for wooden cues. Championship competition, amateur and professional, is a modern development in billiards. The first formal professional tournament held in the United States took place in New York in 1863 with eight players competing. The first three-cushion tournament was held in St. Louis in 1878.

Billiards Statistics

Source: John Canell, Secretary, The Billiard Congress of America.

World Three-cushion Champions

1878	Leon Magnus	1911	Alfredo DeOro	1917-18	Alfredo DeOro	1931*	Arthur Thurnblad
1899	W. H. Catton	1912	Joe Carney	1918-19	Augie Kieckhefer	1932	Augie Kieckhefer
1900	Eugene Carter	1912	John Horgan	1919	Alfredo DeOro	1933	Welker Cochran
1900	Lloyd Jevne	1913-14	Alfredo DeOro	1919	R. L. Cannafax	1934	John Layton
1907	Harry P. Cline	1915	George Moore	1920	John Layton	1935	Welker Cochran
1908	John Daly	1915	William H. Huey	1921	Augie Kieckhefer	1936	Willie Hoppe
1908	Thomas Hueston	1916	Alfredo DeOro	1921-23	John Layton	1937-38	Welker Cochran
1908-09	Alfredo DeOro	1916	Charles Ellis	1923	Tiff Denton	1939	Joe Chamaco
1910	Fred Eames	1916	Charles McCourt	1924-25	R. L. Cannafax	1940-44	Willie Hoppe
1910	Alfredo DeOro	1916	Hugh Heal	1926-27	Otto Reiselt	1944-45	Welker Cochran
1910	John Daly	1916	George Moore	1927	Augie Kieckhefer	1947-52	Willie Hoppe
1910	Thomas Hueston	1917	Charles McCourt	1928	Otto Reiselt	1953	Ray Kilgore
1911	John Daly	1917	R. L. Cannafax	1928-30	John Layton	1954-58	No tournament

World Pocket Billiard Champions

1878-80	Cyrille Dion	1899-1900	Alfredo DeOro	1912	R. J. Ralph	1936	James Caras
1881	Gottlieb Wahstrom	1901	Frank Sherman	1913	Alfredo DeOro	1937	Ralph Greenleaf
1882-83	Albert Frey	1901	Alfredo DeOro	1913-15	Bennie Allen	1938-39	James Caras
1884	J. L. Malone	1902	William Clearwater	1916	Emmet Blankenship	1940	Andrew Ponzi
1886-87	Alfred Frey	1902	Grant Eby	1916	John Layton	1941	Willie Mosconi
1887	J. L. Malone (f)	1903-04	Alfredo DeOro	1916-18	Frank Taberski	1941	Erwin Rudolph
1887-88	Alfredo DeOro	1905	Jerome Keogh (f)	1919-24	Ralph Greenleaf	1942	Irving Crane
1888	Frank Powers	1905	Alfredo DeOro	1925	Frank Taberski	1942	Willie Mosconi
1889	Albert Frey	1905	Thomas Hueston (f)	1926	Ralph Greenleaf	1943	Andrew Ponzi
1889	Alfredo DeOro	1906	Thomas Hueston	1926	Erwin Rudolph	1943-45	Willie Mosconi
1890	H. Manning	1906	John Horgan	1926	Thomas Hueston	1946	Irving Crane
1891	Frank Powers (f)	1906	Jerome Keogh	1927	Frank Taberski	1946-48	Willie Mosconi
1892-94	Alfredo DeOro	1907-08	Thomas Hueston	1927-28	Ralph Greenleaf	1949	James Caras
1895	William Clearwater	1908	Frank Sherman	1928	Frank Taberski	1950-53	Willie Mosconi
1895	Alfredo DeOro	1908	Alfredo DeOro	1929	Ralph Greenleaf	1954	No tournament
1896	Frank Stewart (f)	1909	Charles Weston	1929	Frank Taberski	1955	Irving Crane
1897	Grant Eby	1909	John Kling	1930	Erwin Rudolph	1955	Willie Mosconi
1897	Jerome Keogh	1910	Thomas Hueston	1930-32	Ralph Greenleaf	1956-58	No tournament
1898	William Clearwater	1910	Jerome Keogh	1933-34	Erwin Rudolph		
1898	Jerome Keogh	1910-12	Alfredo DeOro	1935	Andrew Ponzi		

(f) Forfeit.

National Amateur Three-cushion Champions

Since 1945, tournament has been limited to athletic clubs and identified as the national amateur invitational three-cushion billiard championship.

1910—Pierre Maupome	1925-26—Dr. A. J. Harris	1930—R. B. Harper	1946—Edward Lee
1911—Charles Morin	1927—Robert M. Lord	1931—Frank Flemming	1946-48—Robert M. Lord
1919—Arthur Newman	1927—Dr. L. P. Macklin	1931-35—Edward Lee	1948—C. T. Vandover
1920—W. B. Huey	1928—J. N. Bozeman	1936—Edward Lee*	1948-53—Edward Lee
1921—Earl Lookabaugh	1929—Charles Jordan	1937—A. Primeau	1954—Lee Lerner
1922—Frank Flemming	1929—Max Shimon	1938—Gene Deardorff	1955—No tournament
1923—Robert M. Lord	1930—Joseph Hall	1939-40—Gene Deardorff	1956—Edward Lee
1924—Frank Flemming	1930—Max Shimon	1945-46—C. T. Vandover	1957—Stanhope Adams
			1958—Edward Lee

* World champion.

† Match.

Standard Measurements in Sports

BASEBALL

Home plate to pitcher's box—60 feet 6 inches.
 Plate to second base—127 feet $3\frac{3}{8}$ inches.
 Distance from base to base (home plate included)—90 feet.
 Size of bases—15 inches by 15 inches.
 Pitcher's plate—24 inches by 6 inches.
 Batter's box—6 feet by 4 feet.
 Home plate—17 inches by 17 inches, cut to a point at rear.
 Home plate to backstop—Not less than 60 feet.
 Weight of ball—Not less than 5 ounces nor more than $5\frac{1}{4}$ ounces.
 Circumference of ball—Not less than 9 inches nor more than $9\frac{1}{4}$ inches.
 Bat—Must be round, not over $2\frac{3}{4}$ inches in diameter at thickest part, nor more than 42 inches in length, and of hardwood in one piece or laminated.

FOOTBALL

Length of field—120 yards.*
 Width of field— $53\frac{1}{3}$ yards (160 feet).
 Height of goal posts—20 feet.
 Height of crossbar—10 feet.
 Width of goal posts—23 feet 4 inches, inside to inside, and not more than 24 feet, outside to outside.
 Length of ball—11 to 11.25 inches (long axis).
 Circumference of ball—21.25 to 21.50 inches (middle); 28 to 28.5 inches (long axis).

* Includes 10 yards of end zone on either side.

LAWN TENNIS

Size of court—Rectangle 78 feet long and 27 feet wide (singles); 78 feet long and 36 feet wide (doubles).
 Height of net—3 feet in center, gradually rising to reach 3-foot 6-inch posts at each side of court.
 Ball—Shall be more than $2\frac{1}{2}$ inches and less than $2\frac{5}{8}$ inches in diameter and weigh more than 2 ounces and less than $2\frac{1}{16}$ ounces.
 Service line—21 feet from net.

ICE HOCKEY

Size of rink—200 feet long by 85 feet wide (desired size).
 Size of goal—6 feet wide by 4 feet in height.
 Puck—1 inch thick and 3 inches in diameter; made of vulcanized rubber; weight—six ounces (unofficial).
 Length of stick—Not more than 53 inches from heel to end of shaft nor $14\frac{1}{4}$ inches from heel to end of blade. Blade should not exceed 3 inches in height, except goalkeeper's stick, which shall not exceed $3\frac{1}{2}$ inches in height except at the heel, where it must not exceed $4\frac{1}{2}$ inches.

BOWLING

Lane dimensions—Overall length 62 feet $10\frac{3}{16}$ inches, measuring from foul line to pit (not including tail plank), with $\frac{1}{2}$ inch tolerance permitted. Foul line to No. 1 pinspot 60 feet, with $\frac{1}{2}$ inch tolerance permitted. Lane width, not less than 41 inches, nor more than 42. Approach, not less than 15 feet. Gutters, not less than 9 inches nor more than $9\frac{1}{2}$ inches wide.
 Ball—Circumference, not more than 27 inches. Weight, 10 pounds minimum, 16 pounds maximum. Balance, tolerance of 3 ounces between top finger hole, side and bottom. One ounce tolerance between right and left sides. One ounce tolerance between front and back sides.

GOLF

Weight of ball—Not greater than 1.620 ounces.
 Size of ball—Not less than 1.680 inches in diameter.
 Velocity of ball—Not greater than 250 feet per second, with 2 per cent tolerance.
 Hole—Shall be $4\frac{1}{4}$ inches in diameter and at least 4 inches deep.
 Clubs—No restrictions on the size; 14 is the maximum number permitted.

BASKETBALL

(National Collegiate A. A. Rules)

Playing court—94 feet long by 50 feet wide (maximum dimensions).
 Baskets—Rings 18 inches in inside diameter, with white cord nets, 15 to 18 inches in length. Each ring is made of metal and is not more than $\frac{5}{8}$ of an inch in diameter.
 Height of basket ring—10 feet.
 Weight of ball—Not less than 20 ounces nor more than 22.
 Circumference of ball—No greater than 30 inches and not less than $29\frac{1}{2}$.
 Free-throw line—15 feet from the face of the backboard.

BOXING

Size of ring—Professional matches take place in an area not less than 18 nor more than 20 feet square. It is enclosed by three 1-inch covered ropes. The floor has a 2-inch padding that extends at least 6 inches beyond the roped area in the case of elevated rings and 3 feet if the ring is at floor level.
 Gloves—In professional fights, 8-ounce gloves generally are used, except in title contests, where 6-ounce gloves are the custom. A.A.U., 8 ounces up to welter-weight, 10 ounces in heavier divisions. Colleges, minimum of 12 ounces.

AUTO RACING

THE FIRST automobiles on the road were erratic in action and driving them or even riding in them was considered a trifle risky, hence it became the sporting thing to do. Experimental excursions in crude cars gave rise to rivalry in speed over the rough roads of the Gay Nineties and this eventually led to formal contests, the first of which was a road race from Paris to Rouen in 1894, with 26 cars showing up at the starting line. Formal competition in the United States started with a road race in the Chicago district on Thanksgiving Day, 1895, and the winner, J. F. Duryea, covered the road distance of 54.36 miles at the astonishing average of 7.5 miles per hour!

Around 1900 Paris became the hub of road racing in Europe and each year there were raucous, dusty and dangerous races from Paris to Berlin, to Vienna, to Madrid

and other cities on the Continent. Accidents were so numerous to drivers and spectators that, after a gory group of mishaps in the forepart of the Paris-Madrid race of 1903, the contest was halted at Bordeaux by public authorities and all road racing was brought under control. Other kinds of auto racing were exposed to view. Some contests, including 24-hour races for stock models, were held on circular or oval tracks originally built for horse racing. Finally came the special racing strips for autos, including such famous autodromes as Brooklands in England and the Indianapolis Speedway in the United States.

As a test of engine and chassis under severe conditions and great strain, auto racing rendered invaluable assistance in the development of the motor car of today.

National Champions

(A. A. A. champions, 1909-1955; U. S. Auto Club champions, since 1956.)

1909 Bert Dingley	1924 Jimmy Murphy	1939 Wilbur Shaw
1910 Ray Harroun	1925 Peter DePaolo	1940 Rex Mays
1911 Ralph Mulford	1926 Harry Hartz	1941 Rex Mays
1912 Ralph DePalma	1927 Peter DePaolo	1946 Ted Horn
1913 Earl Cooper	1928 Louis Meyer	1947 Ted Horn
1914 Ralph DePalma	1929 Louis Meyer	1948 Ted Horn
1915 Earl Cooper	1930 Billy Arnold	1949 John Parsons
1916 Dario Resta	1931 Louis Schneider	1950 Henry Banks
1917 Earl Cooper	1932 Bob Carey	1951 Tony Bettenhausen
1918 Ralph Mulford	1933 Louis Meyer	1952 Charles Stevenson
1919 Howard Wilcox	1934 Bill Cummings	1953 Sam Hanks
1920 Gaston Chevrolet	1935 Kelly Petillo	1954 Jimmy Bryan
1921 Tommy Milton	1936 Mauri Rose	1955 Bob Sweikert
1922 Jimmy Murphy	1937 Wilbur Shaw	1956 Jimmy Bryan
1923 Eddie Hearne	1938 Floyd Roberts	1957 Jimmy Bryan
		1958 Tony Bettenhausen

History of the One-Mile Speed Mark

The first recorded effort for one mile was made in 1898 by Chasseloup-Laubat, driving a Jentaud, in France. His average was 39.23 m.p.h. This was increased to 65.79 in 1899 by Jenatzky, also in France. The first man to travel better than 100 m.p.h. was Rigolly, in 1904, at 103.56 m.p.h., followed by Baras, with 104.53 in the same year. The first over 200 m.p.h. was Major H. O. D. Segrave, who drove at 203.79 in 1927 at Daytona, Florida.

In 1947 John Cobb of London became the first person to travel more than 400 m.p.h. on land. The Englishman accomplished the

feat on Sept. 16 at Bonneville, Utah, while raising the world mile record to 394.196 m.p.h. and the world kilometer (.62137 of a mile) mark to 393.825 m.p.h.

Cobb's fastest mile was covered in 8.93 seconds and his average speed was 9.1325 seconds. The Briton drove at the rate of 385.645 m.p.h. for the mile and 388.019 for the kilometer on the southward run, then increased his pace to 403.135 m.p.h. and 399.808, respectively, on the northward sprint, the best times ever recorded.

Those who drove 300 m.p.h. or better follow (all at Bonneville):

Date	Driver	Car	Average
Sept. 3, 1935.....	Sir Malcolm Campbell.....	Bluebird Special.....	301.1292
Nov. 19, 1937.....	Capt. G. E. T. Eyston.....	Thunderbolt #1.....	311.42
Aug. 27, 1938.....	Capt. G. E. T. Eyston.....	Thunderbolt #1.....	345.5
Sept. 15, 1938.....	John Cobb.....	Railton.....	350.2
Sept. 16, 1938.....	Capt. G. E. T. Eyston.....	Thunderbolt #1.....	357.5
Aug. 23, 1939.....	John Cobb.....	Railton Red Lion.....	368.9
Sept. 16, 1947.....	John Cobb.....	Railton Mobil Special.....	394.196

Indianapolis Motor Speedway Winners

(500-mile race)

Year	Winner	Car	Second	Third	Time	m.p.h.
1911	Harroun	Marmon	Mulford	Bruce-Brown	6:42:08	74.59
1912	Dawson	National	Tetzloff	Hughes	6:21:08	78.70
1913	Goux	Peugeot	Wishart	Merz	6:35:05	76.92
1914	Thomas	Delarge	Duray	Guyot	6:03:45	82.47
1915	DePalma	Mercedes	Resta	Anderson	5:33:55	89.84
1916*	Resta	Peugeot	De Aleve	Mulford	3:34:17	83.26
1917-18	No races					
1919	Wilcox	Peugeot	Hearne	Goux	5:40:42	88.06
1920	Chevrolet	Monroe	Thomas	Milton	5:38:32	88.50
1921	Milton	Frontenac	Charles	Ford	5:34:44	89.62
1922	Murphy	Murphy Special	Hartz	Hearne	5:17:30	94.48
1923	Milton	H. G. S. Special	Hartz	Murphy	5:29:50	90.95
1924	Corum-Boyer	Dusenber Special	Cooper	Murphy	5:05:23	98.23
1925	DePaolo	Dusenber Special	Lewis	Shafer	4:56:39	101.13
1926†	Lockhart	Miller Special	Hartz	Woodbury	4:10:17	95.88
1927	Souders	Duesenberg	Devore	Giulatta	5:07:33	97.54
1928	Meyer	Miller Special	Moore	Souders	5:01:33	99.48
1929	Keech	Simplex Special	Meyer	Gleason	5:07:25	97.58
1930	Arnold	Hartz-Miller	Canton	Schneider	4:58:39	100.488
1931	Schneider	Bowes Special	Frame	Hepburn	5:10:28	96.629
1932	Frame	Miller Special	Wilcox	Bergere	4:48:03.79	104.144
1933	Meyer	Miller Special	Shaw	Moore	4:48:12.75	104.089
1934	Cummings	Miller Special	Rose	Moore	4:46:05.20	104.863
1935	Petillo	Gilmore Special	Shaw	Cummings	4:42:22.71	106.240
1936	Meyer	Ring Free Special	Horn	Mackenzie	4:35:03.39	109.069
1937	Shaw	Shaw-Gilmore Special	Hepburn	Horn	4:24:07.80	113.580
1938	Roberts	Burd Piston Reg. Special	Shaw	Miller	4:15:58.40	117.200
1939	Shaw	Boyle Special	Snyder	Bergere	4:20:47.39	115.035
1940	Shaw	Boyle Special	Mays	Rose	4:22:31.17	114.277
1941	Rose-Davis‡	Noc-Out Hose Clamp Special	Mays	Horn	4:20:36.24	115.117
1942-45	No races					
1946	Robson	Thorne Eng. Special	Jackson	Horn	4:21:16.71	114.820
1947	Rose	Blue Crown Special	Holland	Horn	4:17:52.17	116.338
1948	Rose	Blue Crown Special	Holland	Nalon	4:10:23.38	119.813
1949	Holland	Blue Crown Special	Parsons	Connor	4:07:15.97	121.327
1950§	Parsons	Wynn's Fiction Proof Spl.	Holland	Rose	2:46:55.97	124.002
1951	Wallard	Belanger Special	Nazaruk	McGrath-Ayulo	3:57:38.05	126.244
1952	Ruttman	Agajanian Special	Rathmann	Hanks	3:52:41.88	128.922
1953	Vukovich	Fuel Injection Spl.	Cross	Hanks-Carter	3:53:01.69	128.740
1954	Vukovich	Fuel Injection Spl.	Bryan	McGrath	3:49:17.27	130.840
1955	Sweikert	John Zink Special	Bettenhausen	Davies	3:53:59.53	128.209
1956	Flaherty	John Zink Special	Hanks	Freeland	3:53:28.84	128.490
1957	Hanks	Belond Exhaust Special	Rathmann	Bryan	3:41:14.25	135.601
1958	Bryan	Belond AP Special	Amick	Boyd	3:44:13.80	133.791

* 300 miles. † Race ended at 400 miles owing to heavy rain. ‡ Davis drove 180 miles, Rose 320. § 1950 race ended at 345 miles because of rain.

CASTING

National Records

DISTANCE EVENTS

	Feet
Trout fly (average)—Jack Crossfield	186½
Trout fly (long cast)—Jack Crossfield	194
Salmon fly (average)—Jon Tarantino	211
Salmon fly (long cast)—Jon Tarantino	227
¼-oz. bait (average)—Richard R. Ward	368
¼-oz. bait (long cast)—Richard R. Ward	386
¼-oz. bait (average)—Charles L. Schall	443
¼-oz. bait (long cast)—Jon Tarantino	453

ACCURACY EVENTS

Dry fly—Held by 9 casters	100 pts.
Wet fly—Held by 67 casters	100 pts.

¼-oz. bait—Charles Sutphin	100 pts.
¼-oz. bait—J. A. Halbleb, Frank Halper and Don Allen	100 pts.

COMBINED EVENTS

All accuracy—Casper Rigamer	396 pts.
Accuracy baits—Casper Rigamer	198 pts.
Accuracy flies—Don Meyer, Fred Mathis and Charles Sutphin	200 pts.
All distance—Jon Tarantino	3234 ft.
Distance baits—William J. Lovely	2367 ft.
Distance flies—Jon Tarantino	1114 ft.

LACROSSE

North-South Game Record

1940—North 6, South 5	1947—North 15, South 3	1951—North 12, South 11	1955—South 12, North 11
1941—South 7, North 6	1948—North 11, South 6	1952—South 15, North 7	1956—South 20, North 10
1942—North 6, South 3	1949—South 11, North 6 †	1953—South 12, North 9	1957—North 14, South 10
1943—South 9, North 5	1950—North 12, South 8	1954—North 13, South 11	1958—South 26, North 6
1946—North 14, South 14			

HORSE RACING

ANCIENT DRAWINGS on stone and bone prove that horse racing is at least 3000 years old, but Thoroughbred Racing is a modern development. Practically every thoroughbred in training today traces its registered ancestry back to one or more of three sires that arrived in England about 1728 from the Near East and became known, from the names of their owners, as the Byerly Turk, the Darley Arabian and the Godolphin Arabian. The Jockey Club (English) was founded at Newmarket in 1750 or 1751 and became the custodian of the Stud Book as well as the court of last resort in deciding turf affairs.

There was horse racing in this country before the Revolution, but the great lift to the breeding industry came with the importation in 1798, by Col. John Hoomes of Virginia, of Diomed, winner of the Epsom Derby of 1780. Diomed's lineal descendants included such famous stars of the American turf as American Eclipse and Lexington. From 1800 to the time of the Civil War there were race courses and breeding establishments plentifully scattered through Virginia, North Carolina, South Carolina, Tennessee, Kentucky, and

Louisiana. In fact, thoroughbred racing was largely a Southern sport and that was one reason why the Confederacy had such excellent cavalry in the Civil War. A century ago crack horses were matched in four-mile races that were run in heats, best two out of three!

The oldest stake event in North America is the Queen's Plate, a Canadian fixture that was first run in the Province of Quebec in 1836. The oldest stake event in the United States is The Travers, which was first run at Saratoga in 1864. The gambling that goes with horse racing and trickery by jockeys, trainers, owners, and track officials caused attacks on the sport by reformers and a demand among horse racing enthusiasts for an honest and effective control of some kind, but nothing of lasting value to racing came of this until the formation of The Jockey Club in 1894. The Jockey Club, composed of about sixty members chosen from the aristocracy of the turf, was all-powerful in racing regulation until the State Racing Commissions came into being as a result of mutual betting and the great revenues that came with the tax on the "daily handle."

Horse Racing Statistics

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HISTORY OF THE AMERICAN TRIPLE CROWN

BELMONT STAKES

Belmont Park; 3-year-olds; 1½ miles.

Run at Jerome Park prior to 1890; run at Morris Park from 1890 to 1905. Distance 1½ miles prior to 1874; reduced to 1¼ miles, 1874; reduced to 1¼ miles, 1890; changed to 1¼ miles, 1893; increased to 1¼ miles, 1895; increased to 1½ miles, 1896; changed to 1½ miles in 1904 and 1905; increased to 1½ miles, 1926.

Year	Winner	Jockey	Wt.	Win val.	1896	Hastings	H. Griffin	122	3,025
1867	Ruthless	J. Gilpatrick	107	\$ 1,850	1897	Scottish Chieftain	J. Scherrer	115	3,550
1868	General Duke	R. Swim	110	2,800	1898	Bowling Brook	F. Littlefield	122	7,810
1869	Fenian	C. Miller	110	3,350	1899	Jean Beraud	R. Clawson	122	9,445
1870	Kingfisher	W. Dick	110	3,750	1900	Ildrim	N. Turner	126	14,790
1871	Harry Bassett	W. Miller	110	5,450	1901	Commando	H. Spencer	126	11,595
1872	Joe Daniels	J. Rowe	110	4,500	1902	Masterman	J. Bullman	126	13,220
1873	Springbok	J. Rowe	110	5,200	1903	Africander	J. Bullman	126	12,285
1874	Saxon	G. Bardee	110	4,200	1904	Delhi	G. Odom	126	11,575
1875	Calvin	R. Swim	110	4,450	1905	Tanya	E. Hildebrand	121	17,240
1876	Algerine	W. Donohue	110	3,700	1906	Burgomaster	L. Lyne	126	22,700
1877	Cloverbrook	C. Holloway	110	5,200	1907	Peter Pan	G. Mountain	126	22,765
1878	Duke of Magenta	L. Hughes	118	3,850	1908	Colin	J. Notter	126	22,765
1879	Spendthrift	S. Evans	118	4,250	1909	Joe Madden	E. Dugan	126	24,550
1880	Grenada	L. Hughes	118	2,800	1910	Sweep	J. Butwell	126	9,700
1881	Saunterer	T. Costello	118	3,000	1913	Prince Eugene	R. Troxler	109	2,825
1882	Forester	J. McLaughlin	118	2,600	1914	Luke McLuke	M. Buxton	126	3,025
1883	George Kinney	J. McLaughlin	118	3,070	1915	The Finn	G. Byrne	126	1,825
1884	Panique	J. McLaughlin	118	3,150	1916	Friar Rock	E. Haynes	126	4,100
1885	Tyrant	P. Duffy	118	2,710	1917	Hourless	J. Butwell	126	5,800
1886	Inspector B.	J. McLaughlin	118	2,720	1918	Johren	F. Robinson	126	8,950
1887	Hanover	J. McLaughlin	118	2,900	1919	Sir Barton	J. Loftus	126	11,950
1888	Sir Dixon	J. McLaughlin	118	3,440	1920	Man of War	C. Kummer	126	7,950
1889	Eric	W. Hayward	118	4,960	1921	Grey Lag	E. Sande	126	8,650
1890	Burlington	S. Barnes	118	8,560	1922	Pillory	C. H. Miller	126	39,200
1891	Foxford	E. Garrison	118½	5,070	1923	Zev	E. Sande	126	38,000
1892	Patron	W. Hayward	122	6,610	1924	Mad Play	E. Sande	126	42,880
1893	Comanche	W. Simms	117	5,310	1925	American Flag	A. Johnson	126	38,500
1894	Henry of Navarre	W. Simms	117	6,680	1926	Crusader	A. Johnson	126	48,550
1895	Belmar	F. Taral	119	2,700	1927	Chance Shot	E. Sande	126	60,910

Belmont Stakes (Cont.)

1928	Vito.....	C. Kummer.....	126	63,430	1943	Count Fleet.....	J. Longden.....	126	35,340
1929	Blue Larkspur.....	M. Garner.....	126	59,650	1944	Bounding Home.....	G. L. Smith.....	126	55,000
1930	Gallant Fox.....	E. Sande.....	126	66,040	1945	Pavot.....	E. Arcaro.....	126	52,675
1931	Twenty Grand.....	C. Kurtzinger.....	126	58,770	1946	Assault.....	W. Mehrtens.....	126	75,400
1932	Faireno.....	T. Malley.....	126	55,120	1947	Phalanx.....	R. Donoso.....	126	78,900
1933	Hurryhoff.....	M. Garner.....	126	49,490	1948	Citation.....	E. Arcaro.....	126	77,700
1934	Peace Chance.....	W. D. Wright.....	126	43,410	1949	Capot.....	T. Atkinson.....	126	60,900
1935	Omaha.....	W. Saunders.....	126	35,480	1950	Middleground.....	W. Boland.....	126	61,350
1936	Granville.....	J. Stout.....	126	29,800	1951	Counterpoint.....	D. Gorman.....	126	82,000
1937	War Admiral.....	C. Kurtzinger.....	126	38,020	1952	One Count.....	E. Arcaro.....	126	82,400
1938	Pasteurized.....	J. Stout.....	126	34,530	1953	Native Dancer.....	E. Guerin.....	126	82,500
1939	Johnstown.....	J. Stout.....	126	37,020	1954	High Gun.....	E. Guerin.....	126	89,000
1940	Bimelech.....	F. A. Smith.....	126	35,030	1955	Nashua.....	E. Arcaro.....	126	83,700
1941	Whirlaway.....	E. Arcaro.....	126	39,770	1956	Needles.....	D. Erb.....	126	83,600
1942	Shut Out.....	E. Arcaro.....	126	44,520	1957	Gallant Man.....	W. Shoemaker.....	126	77,300
					1958	Cavan.....	P. Anderson.....	126	73,440

KENTUCKY DERBY

Churchill Downs; 3-year-olds; 1¼ miles.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1875	Aristides.....	O. Lewis.....	100	\$2,850	1917	Omar Khayyam.....	C. Borel.....	117	16,600
1876	Vagrant.....	R. Swim.....	97	2,950	1918	Exterminator.....	W. Knapp.....	114	14,700
1877	Baden Baden.....	W. Walker.....	100	3,300	1919	Sir Barton.....	J. Loftus.....	112½	20,825
1878	Day Star.....	J. Carter.....	100	4,050	1920	Paul Jones.....	T. Rice.....	126	30,375
1879	Lord Murphy.....	C. Schauer.....	100	3,550	1921	Behave Yourself.....	C. Thompson.....	126	38,450
1880	Fonso.....	G. Lewis.....	105	3,800	1922	Morvich.....	A. Johnson.....	126	46,775
1881	Hindoo.....	J. McLaughlin.....	105	4,410	1923	Zev.....	E. Sande.....	126	53,600
1882	Apollo.....	B. Hurd.....	102	4,560	1924	Black Gold.....	J. D. Mooney.....	126	52,775
1883	Leonatus.....	W. Donohue.....	105	3,760	1925	Flying Ebony.....	E. Sande.....	126	52,950
1884	Buchanan.....	I. Murphy.....	110	3,990	1926	Bubbling Over.....	A. Johnson.....	126	50,075
1885	Joe Cotton.....	E. Henderson.....	110	4,630	1927	Whiskery.....	L. McAtee.....	126	51,000
1886	Ben Ali.....	P. Duffy.....	118	4,890	1928	Reigh Count.....	C. Lang.....	126	55,375
1887	Montrose.....	I. Lewis.....	118	4,200	1929	Clyde Van Dusen.....	L. McAtee.....	126	53,950
1888	Macbeth II.....	G. Covington.....	115	4,740	1930	Gallant Fox.....	E. Sande.....	126	50,725
1889	Spokane.....	T. Kiley.....	118	4,970	1931	Twenty Grand.....	C. Kurtzinger.....	126	48,725
1890	Riley.....	I. Murphy.....	118	5,460	1932	Burgoo King.....	E. James.....	126	52,350
1891	Kingman.....	I. Murphy.....	122	4,680	1933	Brokers Tip.....	D. Meade.....	126	48,925
1892	Azra.....	A. Clayton.....	122	4,230	1934	Cavalcade.....	M. Garner.....	126	28,175
1893	Lookout.....	E. Kunze.....	122	4,090	1935	Omaha.....	W. Saunders.....	126	39,525
1894	Chant.....	F. Goodale.....	122	4,020	1936	Bold Venture.....	I. Hanford.....	126	37,725
1895	Halma.....	J. Perkins.....	122	2,970	1937	War Admiral.....	C. Kurtzinger.....	126	52,050
1896	Ben Brush.....	W. Simms.....	117	4,850	1938	Lawrin.....	E. Arcaro.....	126	47,050
1897	Typhoon II.....	F. Garner.....	117	4,850	1939	Johnstown.....	J. Stout.....	126	46,350
1898	Plaudit.....	W. Simms.....	117	4,850	1940	Gallahadion.....	C. Bierman.....	126	60,150
1899	Manuel.....	F. Taral.....	117	4,850	1941	Whirlaway.....	E. Arcaro.....	126	61,275
1900	Lieut. Gibson.....	J. Boland.....	117	4,850	1942	Shut Out.....	W. D. Wright.....	126	64,225
1901	His Eminence.....	J. Winkfield.....	117	4,850	1943	Count Fleet.....	J. Longden.....	126	60,725
1902	Alan-a-Dale.....	J. Winkfield.....	117	4,850	1944	Pensive.....	C. McCreary.....	126	64,675
1903	Judge Himes.....	H. Booker.....	117	4,850	1945	Hoop Jr.....	E. Arcaro.....	126	64,850
1904	Elwood.....	F. Prior.....	117	4,850	1946	Assault.....	W. Mehrtens.....	126	96,400
1905	Agile.....	J. Martin.....	122	4,850	1947	Jet Pilot.....	E. Guerin.....	126	92,160
1906	Sir Huon.....	R. Troxler.....	117	4,850	1948	Citation.....	E. Arcaro.....	126	83,400
1907	Pink Star.....	A. Minder.....	117	4,850	1949	Ponder.....	S. Brooks.....	126	91,600
1908	Stone Street.....	A. Pickens.....	117	4,850	1950	Middleground.....	W. Boland.....	126	92,650
1909	Wintergreen.....	V. Powers.....	117	4,850	1951	Count Turf.....	C. McCreary.....	126	98,030
1910	Donau.....	F. Herbert.....	117	4,850	1952	Hill Gail.....	E. Arcaro.....	126	96,300
1911	Meridian.....	G. Archibald.....	117	4,850	1953	Dark Star.....	H. Moreno.....	126	90,050
1912	Worth.....	C. H. Shilling.....	117	4,850	1954	Determine.....	R. York.....	126	102,050
1913	Donerail.....	R. Goose.....	117	5,475	1955	Swaps.....	W. Shoemaker.....	126	108,400
1914	Old Rosebud.....	J. McCabe.....	114	9,125	1956	Needles.....	D. Erb.....	126	123,450
1915	Regret.....	J. Notter.....	112	11,450	1957	Iron Liege.....	W. Hartack.....	126	107,950
1916	George Smith.....	J. Loftus.....	117	9,750	1958	Tim Tam.....	I. Valenzuela.....	126	116,400

"TRIPLE CROWN" WINNERS IN THE UNITED STATES
(Kentucky Derby, Preakness and Belmont Stakes)

Year	Horse	Owner	Year	Horse	Owner
1919	Sir Barton.....	J. K. L. Ross	1941	Whirlaway.....	Warren Wright
1930	Gallant Fox.....	William Woodward	1943	Count Fleet.....	Mrs. John Hertz
1935	Omaha.....	William Woodward	1946	Assault.....	Robert J. Kleberg
1937	War Admiral.....	Samuel D. Riddle	1948	Citation.....	Warren Wright

PREAKNESS STAKES

Pimlico; 3-year-olds; 1½ miles.

Year	Winner	Jockey	Wt.	Win val.	1918	War Cloud	J. Loftus	117	12,250
1873	Survivor	G. Barbee	110		1918	Jack Hare Jr.	C. Peak	115	11,250
1874	Culpepper	M. Donohue	110		1919	Sir Barton	J. Loftus	126	24,500
1875	Tom Ochiltree	L. Hughes	110		1920	Man o' War	C. Kummer	126	23,000
1876	Shirley	G. Barbee	110		1921	Broomspun	F. Coltletti	114	43,000
1877	Cloverbrook	C. Holloway	110		1922	Pillory	L. Morris	114	51,000
1878	Duke of Magenta	C. Holloway	110		1923	Vigil	B. Marinelli	114	52,000
1879	Harold	W. Hughes	110	\$2,550	1924	Nellie Morse	J. Merimee	121	54,000
1880	Grenada	W. Hughes	110	2,000	1925	Coventry	C. Kummer	126	52,700
1881	Saunterer	W. Costello	110	1,950	1926	Display	J. Maiben	126	53,625
1882	Vanguard	W. Costello	110	1,250	1927	Bostonian	A. Abel	126	53,100
1883	Jacobus	G. Barbee	110	1,635	1928	Victorian	R. Workman	126	60,000
1884	Knight of Ellerslie	S. H. Fisher	110	1,905	1929	D. Freeland	L. Schaefer	126	52,325
1885	Tecumseh	J. McLaughlin	118	2,160	1930	Gallant Fox	E. Sande	126	51,925
1886	The Bard	S. H. Fisher	118	2,050	1931	Mate	G. Ellis	126	48,225
1887	Dunboyne	W. Donohue	118	1,675	1932	Burgoo King	E. James	126	50,375
1888	Refund	F. Littlefield	118	1,185	1933	Head Play	C. Kurtzinger	126	26,850
1889	Buddhist	H. Anderson	118	1,130	1934	High Quest	R. Jones	126	25,175
1894	Assignee	F. Taral	122	1,830	1935	Omaha	W. Saunders	126	25,325
1895	Belmar	F. Taral	115	1,350	1936	Bold Venture	G. Woolf	126	27,325
1896	Margrave	H. Griffin	115	1,350	1937	War Admiral	C. Kurtzinger	126	45,600
1897	Paul Kauvar	Thorpe	108	1,420	1938	Dauber	M. Peters	126	51,857
1898	Sly Fox	W. Simms	120	1,450	1939	Challdon	G. Seabo	126	53,710
1899	Half Time	R. Clawson	104	1,580	1940	Bimelech	F. A. Smith	126	53,230
1900	Hindus	H. Spencer	106	1,900	1941	Whirlaway	E. Arcaro	126	49,365
1901	The Parader	Landry	118	1,605	1942	Alsab	B. James	126	58,175
1902	Old England	L. Jackson	115	2,240	1943	Count Fleet	J. Longden	126	43,190
1903	Floarcine	W. Gannon	113	1,875	1944	Pensive	C. McCreary	126	60,075
1904	Bryn Mawr	E. Hildebrand	108	2,355	1945	Polynesia	W. D. Wright	126	66,170
1905	Cairngorm	W. Davis	114	2,145	1946	Assault	W. Mehrtens	126	96,620
1906	Whimsical	W. Miller	108	2,355	1947	Faultless	D. Dodson	126	98,005
1907	Don Enrique	G. Mountain	107	2,260	1948	Citation	E. Arcaro	126	91,870
1908	Royal Tourist	E. Dugan	112	2,455	1949	Capot	T. Atkinson	126	79,985
1909	Effendi	W. Doyle	116	3,225	1950	Hill Prince	E. Arcaro	126	56,115
1910	Layminster	R. Estep	84	3,300	1951	Bold	E. Arcaro	126	83,110
1911	Watervale	E. Dugan	112	2,700	1952	Blue Man	C. McCreary	126	86,135
1912	Colonel Holloway	C. Turner	107	1,450	1953	Native Dancer	E. Guerin	126	65,200
1913	Buskin	J. Butwell	117	1,670	1954	Hasty Road	J. Adams	126	91,600
1914	Holiday	A. Schuttinger	108	1,355	1955	Nashua	E. Arcaro	126	67,550
1915	Rhine Maiden	D. Hoffman	104	1,275	1956	Fabius	W. Hartack	126	84,250
1916	Damrosch	L. McAtee	115	1,380	1957	Bold Ruler	E. Arcaro	126	65,250
1917	Kalitan	E. Haynes	116	4,800	1958	Tim Tam	I. Valenzuela	126	97,900

WINNERS OF OTHER TRADITIONAL STAKES

AMERICAN DERBY

Washington Park; 3-year-olds; 1½ miles.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1884	Modesty	1900	Sidney Lucas	1932	Gusto	1947	Fervent
1885	Volante	1901	Robert Waddell	1933	Mr. Khayyam	1948	Citation
1886	Silver Cloud	1902	Wyeth	1934	Cavalcade	1949	Ponder
1887	C. H. Todd	1903	The Picket	1935	Black Helen	1950	Hill Prince
1888	Emperor of Norfolk	1904	Highball	1937	Dawn Play	1951	Hall of Fame
1889	Spokane	1916	Dodge	1940	Motland	1952	Mark-Ye-Well
1890	Uncle Bob	1926	Boot to Boot	1941	Whirlaway	1953	Native Dancer
1891	Strathmeath	1927	Hydromel	1942	Alsab	1954	Errard King
1892	Carlsbad	1928	Toro	1943	Askmenow	1955	Swaps
1893	Boundless	1929	Windy City	1944	By Jimminy	1956	Swoon's Son
1894	Rey el S'ta A'ta	1930	Reveille Boy	1945	Fighting Step	1957	Round Table
1895	Pink Coat	1931	Mate	1946	Eternal Reward	1958	Nadir

When Is a Horse a Horse?

Terms by which a horse is known in racing, as explained by John I. Day of the Thoroughbred Racing Associations: A *foal* is a young horse of either sex and while unweaned is known as a *suckling*. When separated from his *dam*, or maternal parent, he is a *weanling* until Jan. 1 fol-

lowing his birth, when he becomes a *yearling*. He may be a *colt*, if male, and remain so (unless he becomes a *gelding*, or unsexed) until he is 5 years old; or, if female, a *filly* until 5. From 5 on, they are *horses* or *mares* and when they become parents, *sires* or *dams*.

ARLINGTON CLASSIC

Arlington Park; 3-year-olds; 1 mile.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1929	Blue Larkspur	1937	Flying Scot	1945	Pot o' Luck	1953	Native Dancer
1930	Gallant Fox	1938	Nedayr	1946	The Dude	1954	Errard King
1931	Mate	1939	Challedon	1947	But Why Not	1955	Nashua
1932	Gusto	1940	Sirocco	1948	Papa Redbird	1956	Swoon's Son
1933	Inlander	1941	Attention	1949	Ponder	1957	Clem
1934	Cavalcade	1942	Shut Out	1950	Greek Song	1958	A Dragon Killer
1935	Omaha	1943	Slide Rule	1951	Hall of Fame		
1936	Granville	1944	Twilight Tear	1952	Mark-Ye-Well		

ARLINGTON FUTURITY

Arlington Park; 2-year-olds; ¾ mile.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1927	Misstep	1937*	Tiger	1944	Free for All	1952	Mr. Good
1928	Double Heart		Teddy's Comet	1945	Spy Song	1953	Hasty Road
1932	Ladysman	1938	Thingumabob	1946	Cosmic Bomb	1954	Royal Note
1933	Far Star	1939	Andy K	1947	Piet	1955	Swoon's Son
1934	Toro Nancy	1940	Swain	1948	Mr. Busher	1956	Greek Game
1935	Grand Slam	1941	Sun Again	1949	Wisconsin Boy	1957	Leather Button
1936	Case Ace	1942	Occupation	1950	To Market	1958	Restless Wing
		1943	Jezrahel	1951	Hill Gail		

* Dead heat.

BELMONT FUTURITY

Belmont Park; 2-year-olds; 6½ furlongs.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1888	Proctor Knott	1906	Electioneer	1925	Pompey	1942	Occupation
1889	Chaos	1907	Colin	1926	Scapa Flow	1943	Occupy
1890	Potomac	1908	Maskette	1927	Anita Peabody	1944	Pavot
1891	His Highness	1909	Sweep	1928	High Strung	1945	Star Pilot
1892	Morello	1910	Novelty	1929	Whichone	1946	First Flight
1893	Domino	1913	Pennant	1930	Jamestown	1947	Citation
1894	The Butterflies	1914	Trojan	1931	Top Flight	1948	Blue Peter
1895	Requital	1915	Thunderer	1932	Kerry Patch	1949	Guillotine
1896	Ogden	1916	Campfire	1933	Singing Wood	1950	Battlefield
1897	L'Alouette	1917	Papp	1934	Chance Sun	1951	Tom Fool
1898	Martimas	1918	Dunboyne	1935	Tintagel	1952	Native Dancer
1899	Charcornac	1919	Man o' War	1936	Pompoon	1953	Porterhouse
1900	Ballyhoo Bey	1920	Step Lightly	1937	Menow	1954	Nashua
1901	Yankee	1921	Bunting	1938	Porter's Mite	1955	Nail
1902	Savable	1922	Sally's Alley	1939	Bimelech	1956	Bold Ruler
1903	Hamburg Belle	1923	St. James	1940	Ou Boots	1957	Jester
1904	Artful	1924	Mother Goose	1941	Some Chance	1958	Intentionally
1905	Ormondale						

EPSOM DERBY

Epsom Downs, England; 3-year-olds; 1 mile, 885 yards.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1780	Diomed	1801	Eleanor	1822	Moses	1843	Cotherstone
1781	Y. Eclipse	1802	Tyrant	1823	Emilius	1844	Orlando
1782	Assassin	1803	Ditto	1824	Cedric	1845	Merry Monarch
1783	Saltram	1804	Hannibal	1825	Middleton	1846	Pyrrhus the First
1784	Sergeant	1805	Card. Beaufort	1826	Lap Dog	1847	Cossack
1785	Aimwell	1806	Paris	1827	Mameluke	1848	Surplice
1786	Noble	1807	Election	1828	Cadland	1849	T. Flying Dutchman
1787	Sir P. Teazle	1808	Pan	1829	Frederick	1850	Voltigeur
1788	Sir Thomas	1809	Pope	1830	Priam	1851	Teddington
1789	Skyscraper	1810	Whalebone	1831	Spaniel	1852	Dan. O'Rourke
1790	Rhadamanthus	1811	Phantom	1832	St. Giles	1853	W. Australian
1791	Eager	1812	Octavius	1833	Dangerous	1854	Andover
1792	John Bull	1813	Smolensko	1834	Plenipotentiary	1855	Wild Dayrell
1793	Waxy	1814	Blucher	1835	Mundig	1856	Ellinton
1794	Daedalus	1815	Whisker	1836	Bay Middleton	1857	Blink Bonny
1795	Spread Eagle	1816	Prince Leopold	1837	Phosphorus	1858	Beadsman
1796	Didelot	1817	Azor	1838	Amato	1859	Musjid
1797	Colt by Fidget	1818	Sam	1839	Bloomsbury	1860	Thormanby
1798	Sir Harry	1819	Tiresias	1840	Little Wonder	1861	Kettledrum
1799	Archduke	1820	Sailor	1841	Coronation	1862	Caractacus
1800	Champion	1821	Gustavus	1842	Attila	1863	Macaroni

Epsom Derby (Cont.)

1864	Blair Athol	1883	Ayrshire	1913	Aboyeur	1936	Mahmoud
1865	Gladiateur	1889	Donovan	1914	Durbur II†	1937	Mid-Day Sun
1866	Lord Lyon	1890	Sanfoin	1915	Pommern	1938	Bois Roussel
1867	Hermit	1891	Common	1916	Fifinella	1939	Blue Peter
1868	Blue Gown	1892	Sir Hugo	1917	Gay Crusader	1940	Pont l'Eveque
1869	Pretender	1893	Isinglass	1918	Gainsborough	1941	Owen Tudor
1870	Kingcraft	1894	Ladas	1919	Grand Parade	1942	Watling Street
1871	Favonius	1895	Sir Visto	1920	Spion Kop	1943	Straight Lead
1872	Cremorne	1896	Persimmon	1921	Humorist	1944	Ocean Swell
1873	Doncaster	1897	Galtee More	1922	Captain Cuttle	1945	Dante
1874	Geo. Frederick	1898	Jeddah	1923	Papyrus	1946	Airborne
1875	Calopin	1899	Flying Fox	1924	Sansovino	1947	Pearl Diver
1876	Kisber	1900	Diamond Jubilee	1925	Manna	1948	My Love
1877	Silbio	1901	Volodyovskij†	1926	Coronach	1949	Nimbus
1878	Sefton	1902	Ard Patrick	1927	Call Boy	1950	Galcador
1879	Sir Bevvs	1903	Rock Sand	1928	Felstead	1951	Arctic Prince
1880	Bend Or	1904	St. Amant	1929	Trigo	1952	Tulyar
1881	Iroquoist†	1905	Cicero	1930	Blenheim	1953	Pinza
1882	Shotover	1906	Spearmint	1931	Cameronian	1954	Never Say Die†
1883	St. Blaise	1907	Orbyt	1932	April the Fifth	1955	Phil Drake
1884*	St. Gatien	1908	Signorinetta	1933	Hyperion	1956	Lavadin
	Harvester	1909	Minoru	1934	Windsor Lad	1957	Crepello
1885	Melton	1910	Lemberg	1935	Bahram	1958	Hard Ridden
1886	Ormonde	1911	Sunstar				
1887	Mer. Hampton	1912	Tagalie				

* Dead heat. † American bred or owned.

FLAMINGO STAKES

Hialeah Park; 3-year-olds; 1 1/8 miles.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1926	Torchet	1936	Brevity	1946	Round View	1952	Charlie McAdam*
1929	Upset Lad	1937	Court Scandal	1947	Faultless	1953	Straight Face
1930	Titus	1938	Lawrin	1948	Citation	1954	Turn-to
1931	Lightning Bolt	1939	Technician	1949	Olympia	1955	Nashua
1932	Evening	1940	Woof Woof	1950	Oil Capitol	1956	Needles
1933	Charley O.	1941	Dispose	1951	Yildiz	1957	Bold Ruler
1934	Time Clock	1942	Requested	1952	Blue Man*	1958	Tim Tam
1935	Black Helen	1944	Stir Up				

* Two divisions.

GRAND NATIONAL STEEPLECHASE

Liverpool, England; 6-year-olds and over; 4 miles, 856 yards (Aintree Course).

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1839	Lottery	1869	The Colonel	1898	Drogheda	1927	Sprig
1840	Jerry	1870	The Colonel	1899	Manifesto	1928	Tipperary Tim
1841	Charity	1871	The Lamb	1900	Ambush II	1929	Gregalach
1842	Gaylad	1872	Casse Tete	1901	Grudon	1930	Shaun Gollin
1843	Vanguard	1873	Disturbance	1902	Shannon Lass	1931	Grakle
1844	Pioneer	1874	Reugny	1903	Drumcree	1932	Forbra
1845	Cure All	1875	Pathfinder	1904	Moifaa	1933	Kellsboro Jack†
1846	Pioneer	1876	Regal	1905	Kirkland	1934	Gordon Miller
1847	Matthew	1877	Austerlitz	1906	Ascetic's Silver	1935	Reynoldstown
1848	Chandler	1878	Shifnal	1907	Eremon	1936	Reynoldstown
1849	Peter Simple	1879	The Liberator	1908	Rubio†	1937	Royal Mail
1850	Abd el Kader	1880	Empress	1909	Lutteur III	1938	Battleship†
1851	Abd el Kader	1881	Woodbrook	1910	Jenkinson	1939	Workman
1852	Miss Mowbray	1882	Seaman	1911	Glenside	1940	Bogskar
1853	Peter Simple	1883	Zoedone	1912	Jerry M	1946	Lovely Cottage
1854	Bourton	1884	Voluptuary	1913	Covertcoat	1947	Caughoo
1855	Wanderer	1885	Roquefort	1914	Sunloch	1948	Sheila's Cottage
1856	Freertrader	1886	Old Joe	1915	Ally Sloper	1949	Russian Hero
1857	Emigrant	1887	Gamecock	1916*	Bermouth	1950	Freebooter
1858	Little Charley	1888	Playfair	1917*	Ballymacad	1951	Nickel Coin
1859	Half Caste	1889	Frigate	1918*	Poethlyn	1952	Teal
1860	Anatis	1890	Illex	1919*	Poethlyn	1953	Early Mist
1861	Jealousy	1891	Come Away	1920	Troytown	1954	Royal Tan
1862	Huntsman	1892	Father O'Flynn	1921	Shaun Spadah	1955	Quare Times
1863	Emblem	1893	Cloister	1922	Music Hall	1956	E. S. B.
1864	Emblematic	1894	Why Not	1923	Sgt. Murphy†	1957	Sundew
1865	Alcibiade	1895	W. M. t. Borneo	1924	Master Rob't	1958	Mr. What
1866	Salamander	1896	The Soarer	1925	Double Chance		
1867	Cortolvin	1897	Manifesto	1926	Jack Horner		
1868	The Lamb						

* Substitute race.

† American bred or owned.

HOLLYWOOD GOLD CUP**Hollywood Park; 3-year-olds and over; 1¼ miles.**

Year	Winner, age	Year	Winner, age	Year	Winner, age	Year	Winner, age
1938	Seabiscuit (5)	1945	Challenge Me (4)	1950	Noor (5)	1955	Rejected (5)
1939	Kayak II (4)	1946	Triplicate (5)	1951	Citation (5)	1956	Swaps (4)
1940	Challedon (4)	1947	Cover Up (4)	1952	Two Lea (6)	1957	Round Table (3)
1941	Big Pebble (5)	1948	Shannon II (7)	1953	Royal Serenade (5)	1958	Gallant Man (4)
1944	Happy Issue (4)	1949	Solidarity (4)	1954	Correspondent (4)		

SANTA ANITA DERBY**Santa Anita Park; 3-year-olds; 1¼ miles.**

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1935	Gille	1941	Porter's Cap	1949	Old Rockport	1954	Determinae
1936	He Did	1945	Bymeabond	1950	Your Host	1955	Swaps
1937	Fairy Hill	1946	Knockdown	1951	Rough'n Tumble	1956	Terrang
1938	Stagehand	1947	On Trust	1952	Hill Gail	1957	Sir William
1939	Ciencia	1948	Salmagundi	1953	Chanlea	1958	Silky Sullivan
1940	Sweepida						

SANTA ANITA HANDICAP**Santa Anita Park; 3-year-olds and over; 1¼ miles.**

Year	Winner, age	Year	Winner	Year	Winner	Year	Winner
1935	Azucar (7)	1939	Kayak II (4)	1948	Talon (6)	1954	Rejected (4)
1936	Top Row (5)	1940	Seabiscuit (7)	1949	Vulcan's Forge (4)	1955	Poona II (4)
1937	Rosemont (5)	1941	Bay View (4)	1950	Noor (5)	1956	Bobby Brocato (5)
1938	Stagehand (3)	1945	Thumbs Up (6)	1951	Moonrush (5)	1957	Corn Husker (4)
		1946	War Knight (6)	1952	Miche (7)	1958	Round Table (4)
		1947	Olhaverly (8)	1953	Mark-Ye-Well (4)		

TRAVERS STAKES**Saratoga; 3-year-olds; 1¼ miles.**

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1864	Kentucky	1887	Carey	1915	Lady Rotha	1937	Burning Star
1865	Maiden	1888	Sir Dixon	1916	Spur	1938	Thanksgiving
1866	Merrill	1889	Long Dance	1917	Omar Khayyam	1939	Eight Thirty
1867	Ruthless	1890	Sir John	1918	Sun Briar	1940	Fenelon
1868	The Banshee	1891	Vallera	1919	Hannibal	1941	Whirlaway
1869	Glenelg	1892	Azra	1920	Man o' War	1942	Shut Out
1870	Kingfisher	1893	Stowaway	1921	Sporting Blood	1943	Eurasian
1871	Harry Bassett	1894	Henry of Navarre	1922	Little Chief	1944	By Jimmy
1872	Joe Daniels	1895	Liza	1923	Wilderness	1945	Adonis
1873	Tom Bowling	1897	Rensselaer	1924	Sun Flag	1946	Natchez
1874	Attila	1901	Blues	1925	Dangerous	1947	Young Peter
1875	D'Artagnan	1902	Hermis	1926	Mars	1948	Ace Admiral
1876	Sultana	1903	Ada Nay	1927	Brown Bud	1949	Arise
1877	Baden Baden	1904	Broomstick	1928	Petee-Wrack	1950	Lights Up
1878	Duke of Magenta	1905	Dandelion	1929	Beacon Hill	1951	Battlefield
1879	Falsetto	1906	Gallavant	1930	Jim Dandy	1952	One Count
1880	Grenada	1907	Frank Gill	1931	Twenty Grand	1953	Native Dancer
1881	Hindoo	1908	Dorante	1932	War Hero	1954	Fisherman
1882	Carley B	1909	Hilarious	1933	Inlander	1955	Thinking Cap
1883	Barnes	1910	Dalmatian	1934	Observant	1956	Oh Johnny
1884	Rataplan	1913	Rock View	1935	Gold Foam	1957	Gallant Man
1885	Bersan	1914	Roamer	1936	Granville	1958	Piano Jim
1886	Inspector B						

WASHINGTON PARK FUTURITY**Washington Park; 2-year-olds; 3/4 mile.**

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1937	Tiger	1944	Free for All	1949	Curtice	1954	Georgian
1940	Porter's Cap	1945	Revoked	1950	To Market	1955	Swoon's Son
1941	Alsab	1946	Education	1951	Oh Leo	1956	Greek Game
1942	Occupation	1947	Bewitch	1952	Mr. Paradise	1957	Jewel's Reward
1943	Occupy	1948	Model Cadet	1953	Hasty Road	1958	Restless Wing

WIDENER HANDICAP**Hialeah Park; 3-year-olds and over; 1¼ miles.**

Year	Winner, age	Year	Winner, age	Year	Winner, age	Year	Winner, age
1936	Mantagna (4)	1942	The Rhymer (4)	1949	Coaltown (4)	1954	Landlocked (4)
1937	Columbiana (4)	1944	Four Freedoms (4)	1950	Royal Governor (6)	1955	Hasty Road (4)
1938	War Admiral (4)	1946	Armed (5)	1951	Sunglow (4)	1956	Nashua (4)
1939	Bull Lea (4)	1947	Armed (6)	1952	Spartan Valor (4)	1957	Bardstown (6)
1940	Many Stings (5)	1948	El Mono (4)	1953	Oil Capitol (6)	1958	Oligarchy (4)
1941	Big Pebble (6)						

WORLD RECORDS

Distance	Horse; age, weight, track and location	Date	Time
¼	Big Racket, 4, 111, Hipodromo de las Americas, Mexico City, Mexico	February 5, 1945	:20½
2½ f.	Pichirilo, 2, 117, Hipodromo de las Americas, Mexico City, Mexico	March 25, 1954	:26½
¾	Atoka, 6, 105, Butte, Mont.	September 7, 1906	:33½
3½ f.	Joe Blair, 5, 115, Juarez, Mexico	February 5, 1916	:39
½	Beau Madison, 2, 120, Turf Paradise, Phoenix, Ariz.	March 30, 1957	:45
4½ f.	Copper Cap, 2, 112, Turf Paradise, Phoenix, Ariz.	April 26, 1959	:51½
¾	Bettyanbull, 5, 120, Turf Paradise, Phoenix, Ariz.	February 8, 1959	:56½
5½ f.	Porterhouse, 6, 125, Hollywood Park, Inglewood, Calif.	June 13, 1957	1:02½
5¾ f.	Fighting Fox, 4, 126, Empire City, Yonkers, N. Y.	July 8, 1939	1:07½
	Doublrab, 4, 130, Empire City, Yonkers, N. Y.	July 18, 1942	1:07½
¾	*Gelding by Blink-Broken Tendril, 3, 123, Brighton, England	August 6, 1929	1:06½
	Dumpty Humpty, 4, 115, Golden Gate Fields, Albany, Calif.	November 2, 1957	1:08
6½ f.	Tyhawk, 4, 117, Turf Paradise, Phoenix, Ariz.	February 8, 1959	1:14½
	Golden Notes, 5, 124, Hawthorne, Cicero, Ill.	September 19, 1959	1:14½
¾	El Drag, 4, 115, Hollywood Park, Inglewood, Calif.	May 21, 1957	1:20
1 mi.	Swaps, 4, 128, Hollywood Park, Inglewood, Calif.	June 9, 1955	1:33½
	Intentionally, 3, 121, Washington Park, Homewood, Ill.	June 27, 1959	1:33½
1 mi. 70 yd.	Mark Antony, 4, 115, Rockingham Park, Salem, N. H.	September 6, 1958	1:39½
1¼	Swaps, 4, 130, Hollywood Park, Inglewood, Calif.	June 23, 1956	1:39
1¼	Bug Brush, 4, 113, Santa Anita Park, Arcadia, Calif.	February 14, 1959	1:46½
13½	Fleet Bird, 4, 123, Golden Gate Fields, Albany, Calif.	October 24, 1953	1:52½
1¼	Noor, 5, 127, Golden Gate Fields, Albany, Calif.	June 24, 1950	1:58½
1½	Man o' War, 3, 126, Belmont Park, Elmont, N. Y.	June 12, 1920	2:14½
1½	The Bastard, 3, 124, Newmarket, England	October 18, 1929	2:23
1 mi. 4½ f.	Mistucky, 9, 113, River Downs, Cincinnati, Ohio	June 26, 1946	2:41½
1½	Swaps, 4, 130, Hollywood Park, Inglewood, Calif.	July 25, 1956	2:38½
1 mi. 5½ f.	Distribute 9, 109, River Downs, Cincinnati, Ohio	September 7, 1940	2:51½
1¾	Noor, 5, 117, Santa Anita Park, Arcadia, Calif.	March 4, 1950	2:52½
1¾	Pharawell, 5, 119, Gulfstream Park, Hallandale, Fla.	April 8, 1947	3:13½
2	Polazel, 3, 142, Salisbury, England	July 8, 1924	3:15
2 mi. 40 yd.	Winning Mark, 4, 107, Thistle Down Park, Cleveland, Ohio	July 20, 1940	3:29½
2 mi. 70 yd.	Filisteo, 7, 116, Pimlico, Baltimore, Md.	October 30, 1941	3:30½
2¼	Midafternoon, 4, 126, Jamaica, Jamaica, N. Y.	November 15, 1956	3:29½
2½	Centurion, 5, 119, Newbury, England	September 29, 1923	3:35
2¾	Santiago, 5, 112, Narragansett Park, Pawtucket, R. I.	September 27, 1941	3:51½
2¼	Dakota, 4, 116, Lingfield, England	May 27, 1927	3:37½
2½	Wiki Jack, 4, 97, Tijuana, Mexico	February 8, 1925	4:15
2½	Miss Grillo, 6, 118, Pimlico, Baltimore, Md.	November 12, 1948	4:14½
2¾	Worthman, 5, 101, Tijuana, Mexico	February 22, 1925	4:51½
2¾	Shot Put, 4, 126, Washington Park, Homewood, Ill.	August 14, 1940	4:48½
2¾	Bosh, 5, 100, Tijuana, Mexico	March 8, 1925	5:23
3	Farragut, 5, 113, Agua Caliente, Mexico	March 9, 1941	5:15
3½	Winning Mark, 4, 104, Washington Park, Homewood, Ill.	August 21, 1940	6:13
4	Sotemia, 5, 119, Churchill Downs, Louisville, Ky.	October 7, 1912	7:10½

* ¾ mile course at Brighton is started on a hill and is down grade to within one-third of a mile of the finish.

Straight Course

¾	Red Jones, 7, 126, Cranwood Race Course, Warrensville Heights, Ohio	October 21, 1958	:21½
¾	King Rhymer, 2, 118, Santa Anita Park, Arcadia, Calif.	February 27, 1947	:32
¾	Gloaming, 6, 127, Trentham, Wellington, New Zealand	January 12, 1921	:45
¾ f.	The Pimpernel, 2, 118, Belmont Park, Elmont, N. Y.	May 17, 1951	:49½
	Reneger, 2, 118, Belmont Park, Elmont, N. Y.	June 7, 1955	:49½
¾	Devineress, 3, 103, Epsom Downs, Epsom, England	June 2, 1933	:54½
5½ f.	Delegate, 7, 113, Belmont Park, Elmont, N. Y.	October 10, 1951	1:01½
¾	Vestment, 2, 115, Belmont Park, Elmont, N. Y.	October 15, 1954	1:07½
6½ f.	Porter's Mite, 2, 119, Belmont Park, Elmont, N. Y.	September 17, 1938	1:14½
	Native Dancer, 2, 122, Belmont Park, Elmont, N. Y.	September 27, 1952	1:14½
¾	First Edition, 4, 126, Hurst Park, Hampton Court, England	May 25, 1926	1:20
1	Mopsus, 3, 105, Brighton, England	June 22, 1939	1:32
1¼	Banquet, 3, 108, Monmouth Park, N. J.	July 17, 1890	2:03½

Jockey Wins 12 Straight Races

A jockey in Southern Rhodesia equaled a world record in 1958 by riding 12 consecutive winners at a horse race meeting. Pieter Strobel started his streak at the

Bulawayo Turf Club on June 7 by winning the last race. On the next racing day, June 28, he won all six races. Then on July 5, he won the first five.

LEADING JOCKEYS SINCE 1936

Year	Jockey	Mounts	Winners	Un-placed	Pct.
1936	B. James	1,106	245	505	.22
1937	J. Adams	1,265	260	642	.21
1938	J. Longden	1,150	236	575	.21
1939	D. Meade	1,284	255	628	.20
1940	E. Dew	1,377	287	709	.21
1941	D. Meade	1,164	210	611	.18
1942	J. Adams	1,120	245	540	.22
1943	J. Adams	1,069	228	511	.21
1944	T. Atkinson	1,539	287	808	.19
1945	J. D. Jessop	1,085	290	445	.27
1946	T. Atkinson	1,377	233	758	.17
1947	J. Longden	1,327	316	566	.24
1948	J. Longden	1,197	319	494	.27
1949	G. Glisson	1,347	270	679	.20
1950	W. Shoemaker	1,640	388	756	.24
	J. Culmone	1,676	388	787	.23
1951	C. Burr	1,162	310	585	.24
1952	A. DeSpirito	1,482	390	633	.26
1953	W. Shoemaker	1,683	485	686	.29
1954	W. Shoemaker	1,251	380	508	.30
1955	W. Hartack	1,702	417	772	.25
1956	W. Hartack	1,387	347	604	.25
1957	W. Hartack	1,238	341	511	.25
1958	W. Shoemaker	1,133	300	511	.26

LEADING TRAINERS SINCE 1936

(Winners saddled)

Year	Name	Winners	Earnings
1936	H. Jacobs	177	155,789
1937	H. Jacobs	134	142,474
1938	H. Jacobs	109	116,609
1939	H. Jacobs	106	100,907
1940	D. Womeldorf	108	112,137
1941	H. Jacobs	123	165,964
1942	H. Jacobs	133	186,371
1943	H. Jacobs	128	210,775
1944	H. Jacobs	117	306,821
1945	S. Lipiec	127	238,361
1946	W. Molter	122	329,725
1947	W. Molter	155	833,970
1948	W. Molter	184	1,016,547
1949	W. Molter	129	696,184
	W. H. Bishop	129	236,181
1950	R. H. McDaniel	156	441,590
1951	R. H. McDaniel	164	539,204
1952	R. H. McDaniel	168	573,837
1953	R. H. McDaniel	211	751,957
1954	R. H. McDaniel	206	834,890
1955	F. H. Merrill, Jr.	154	298,794
1956	V. R. Wright	177	532,344
1957	V. R. Wright	192	627,271
1958	F. H. Merrill, Jr.	171	820,827

LEADING MONEY-WINNING OWNERS

Year	Name	Amount
1936	Milky Way Farm Stable	206,450
1937	Mrs. Charles S. Howard	214,559
1938	H. Maxwell Howard	226,495
1939	Belair Stud	284,250
1940	Charles S. Howard	334,120
1941	Calumet Farm	475,091
1942	Greentree Stable	414,432
1943	Calumet Farm	267,915
1944	Calumet Farm	601,660
1945	Maine Chance Farm	589,170
1946	Calumet Farm	564,095
1947	Calumet Farm	1,402,436
1948	Calumet Farm	1,269,710
1949	Calumet Farm	1,128,942
1950	Brookmeade Stable	651,399
1951	Greentree Stable	637,242
1952	Calumet Farm	1,283,197
1953	A. G. Vanderbilt	987,306
1954	King Ranch	837,615
1955	Hasty House Farm	832,879
1956	Calumet Farm	1,057,383
1957	Calumet Farm	1,150,910
1958	Calumet Farm	946,262

TOP MONEY-WINNING HORSES

Year	Horse and age	Starts	1st	Amount
1936	Granville (3)	11	7	110,295
1937	Seabiscuit (4)	15	11	168,580
1938	Stagehand (3)	15	8	189,710
1939	Challedon (3)	15	9	184,535
1940	Bimelech (3)	7	4	110,005
1941	Whirlaway (3)	20	13	272,386
1942	Shut Out (3)	12	8	238,872
1943	Count Fleet (3)	6	6	174,055
1944	Pavot (2)	8	8	179,040
1945	Busher (3)	13	10	273,735
1946	Assault (3)	15	8	424,195
1947	Armed (6)	17	11	376,325
1948	Citation (3)	20	19	709,470
1949	Ponder (3)	21	9	321,925
1950	Noor (5)	12	7	846,940
1951	Counterpoint (8)	16	7	250,525
1952	Crafty Admiral (4)	16	9	277,225
1953	Native Dancer (3)	10	9	513,425
1954	Determine (3)	15	10	328,700
1955	Nashua (3)	12	10	752,550
1956	Needles (3)	8	4	440,850
1957	Round Table (3)	22	15	600,285
1958	Round Table (4)	20	14	662,780

Round Table Racing's Biggest Money Winner

Round Table, owned by Travis Kerr of Oklahoma City, displaced Nashua as the top money-winning horse of all time on Oct. 11, 1958. His victory that day in the Hawthorne Gold Cup at Chicago gave Round Table a lifetime total of \$1,336,364. Nashua's old record was \$1,288,565. On Aug. 22, 1959, Round Table, then 5 years old, brought his earnings beyond \$1½ million when he won the Arlington Handicap in Chicago. The victory, his 40th in 61 starts since 1956, lifted Round Table's winnings to \$1,541,889.

Horses which led the list of all-time money winners before Round Table:

	Starts	1st	2d	3d	Earnings
Nashua	30	22	4	1	\$1,288,565
Citation	45	32	10	2	1,085,670
Stymie	131	35	33	28	918,485
Armed	81	41	20	10	817,475
Assault	42	18	5	7	675,470
Whirlaway	60	32	15	9	561,161
Seabiscuit	89	33	15	13	437,730
Sun Beau	74	33	12	10	376,744

HARNESS RACING

OLIVER WENDELL HOLMES, the famous Autocrat of the Breakfast Table, wrote that the running horse was a gambling toy but the trotting horse was useful and, furthermore, "horse-racing is not a republican institution; horse-trotting is." Oliver Wendell Holmes was a born and bred New Englander and New England was the nursery of the harness racing sport in America. Pacers and trotters were matters of local pride and prejudice in Colonial New England and, shortly after the Revolution, the Messenger and Justin Morgan strains produced many winners in harness racing "matches" along the turnpikes of New York, Connecticut, Rhode Island, Massachusetts, Vermont, and New Hampshire.

There was English thoroughbred blood in Messenger and Justin Morgan and, many years later, it was blended in Rysdyk's

Hambletonian, foaled in 1849. Hambletonian was not particularly fast under harness but his descendants have had almost a monopoly of prizes, titles, and records in the harness racing game. Hambletonian was purchased as a foal with its dam for a total of \$124 by William Rysdyk of Goshen, N. Y., and made a modest fortune for the purchaser.

Trotters and pacers often were raced under saddle in the old days and, in fact, the custom still survives in some places in Europe. Dexter, the great trotter that lowered the mile record from 2:19 $\frac{3}{4}$ to 2:17 $\frac{1}{4}$ in 1867, was said to handle just as well under saddle as when pulling a sulky. But as sulkies were lightened in weight and improved in design, trotting under saddle became less common and finally faded out in this country.

WORLD RECORDS

Established in a Race or Against Time at One Mile

Source: Larry Evans, Public Relations Director, United States Trotting Association.

TROTTING ON MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:55 1/4	Greyhound	Sep Palin	Lexington, Ky.	1938
Yearling.....	2:15 1/5	Rilda Rose	Ike Bailey	Lexington, Ky.	1955
2-year-old.....	1:59 $\frac{3}{4}$	Yankee Lass	Frank Ervin	Lexington, Ky.	1957
3-year-old.....	1:58	Titan Hanover	Harry Pownall	Du Quoin, Ill.	1945
	1:58	Emily's Pride	Flick Nipe	Lexington, Ky.	1958
	1:58	Yankee Lass	Frank Ervin	Lexington, Ky.	1958
4-year-old.....	1:57 1/4(r)	Greyhound	Sep Palin	Springfield, Ill.	1936
	1:57 1/4	Spencer Scott	Fred Egan	Lexington, Ky.	1941

TROTTING ON HALF-MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:59 3/4	Greyhound	Sep Palin	Goshen, N. Y.	1937
Yearling.....	2:21 1/2	U. Forbes	H. C. Moody	Louisville, Ky.	1913
2-year-old.....	2:03 1/2(r)	Titan Hanover	Harry Pownall	Delaware, Ohio	1944
3-year-old.....	2:01 2/5(r)	Galophone	Wayne Smart	Delaware, Ohio	1955
	2:01 2/5	Hickory Smoke	John Simpson	Delaware, Ohio	1957
4-year-old.....	1:59 4/5(r)	Darn Safe	B. J. Schue	Saratoga Springs, N. Y.	1957

PACING ON MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:55	Billy Direct	Vic Fleming	Lexington, Ky.	1938
	1:55(r)	Adios Harry	Luther Lyons	Vernon, N. Y.	1955
Yearling.....	2:14 3/4	Royal Lady 2nd	O. M. Powell	Indianapolis	1939
2-year-old.....	1:57(r)	Bullet Hanover	John Simpson	Indianapolis	1959
3-year-old.....	1:56 4/5	Adios Butler	Clint Hodgins	Lexington, Ky.	1959
4-year-old.....	1:55	Billy Direct	Vic Fleming	Lexington, Ky.	1938
	1:55(r)	Adios Harry	Luther Lyons	Vernon, N. Y.	1955

PACING ON HALF-MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:57 4/5(r)	Bye Bye Bird	Clint Hodgins	Westbury, N. Y.	1959
Yearling.....	2:18 1/4	Lady Patch	O. M. Powell	*	1924
2-year-old.....	2:00 4/5(r)	Muncy Hanover	Earle Avery	Delaware, Ohio	1959
3-year-old.....	1:59 2/5(r)	Adios Butler	Clint Hodgins	Delaware, Ohio	1959
4-year-old.....	1:57 4/5(r)	Bye Bye Bird	Clint Hodgins	Westbury, N. Y.	1959

(r) Record made in race. * Data unavailable.

Betting Record for Pari-Mutuel Harness Racing

A record for betting at a pari-mutuel harness racing track was established at Yonkers Raceway, Yonkers, N. Y., on Apr. 24, 1959, when a crowd of 34,950 wagered \$3,607,787 on the nine-race program. The

previous record had been set at Yonkers the week before, \$2,531,060.

A record for attendance at a harness racing program was established at Roosevelt Raceway, Westbury, N. Y., when a crowd of 80,586 turned out on Aug. 17, 1967.

HISTORY OF TRADITIONAL HARNESS RACING STAKES

The Hambletonian

Three-year-old trotters. One mile. Raced at Syracuse, N. Y., 1926, 1928; at Lexington, Ky., 1927, 1929 at Goshen, N. Y., 1930-42, 1944-56; at Yonkers, N. Y., 1943; at Du Quoin, Ill., since 1957.

Year	Winner	Driver	Best time	Total purse
1926	Guy McKinney	Nat Ray	2:04 3/4	\$ 73,451.32
1927	Isola's Worthy	Marvin Childs	2:03 3/4	54,194.44
1928	Spencer	W. H. Leese	2:02 1/2	66,226.25
1929	Walter Dear	Walter Cox	2:02 3/4	60,309.60
1930	Hanover's Bertha	Tom Berry	2:03	56,859.84
1931	Calumet Butler	Dick McMahon	2:03 1/4	50,921.39
1932	The Marchioness	Will Caton	(a)2:01 1/4	49,489.26
1933	Mary Reynolds	Ben White	2:03 3/4	40,459.88
1934	Lord Jim	H. M. Marshall	2:02 3/4	25,845.44
1935	Greyhound	Sep Palin	2:02 1/4	33,221.43
1936	Rosalind	Ben White	2:01 3/4	35,643.83
1937	Shirley Hanover	Henry Thomas	2:01 1/2	37,912.58
1938	McLin Hanover	Henry Thomas	2:02 1/4	37,962.37
1939	Peter Astra	H. M. Marshall	2:04 1/4	40,502.46
1940	Spencer Scott	Fred Egan	2:02	43,658.45
1941	Bill Gallon	Lee Smith	2:05	38,729.86
1942	The Ambassador	Ben White	2:04	38,954.38
1943	Volo Song	Ben White	(b)2:02 1/2	42,298.03
1944	Yankee Maid	Henry Thomas	2:04	33,577.12
1945	Titan Hanover	Harry Pownall	2:04	50,196.96
1946	Chestertown	Tom Berry	2:02 1/2	50,995.57
1947	Hoot Mon	Sep Palin	2:00	46,267.93
1948	Demon Hanover	Harrison Hoyt	2:02	59,941.18
1949	Miss Tilly	Fred Egan	2:01 2/5	69,791.08
1950	Lusty Song	Del Miller	2:02	75,209.12
1951	Mainliner	Guy Crippen	2:02 3/5	95,263.93
1952	Sharp Note	Bi Shively	2:02 3/5	87,637.55
1953	Helicopter	Harry Harvey	(c)2:01 3/5	117,117.98
1954	Newport Dream	Del Cameron	2:02 4/5	106,830.68
1955	Scott Frost	Joe O'Brien	2:00 3/5	86,863.32
1956	The Intruder	Ned Bower	2:01 2/5	100,603.99
1957	Hickory Smoke	John Simpson	2:01	111,126.25
1958	Emily's Pride	Flick Nipe	1:59 4/5	106,719.24

(a) By Hollywood Dennis. (b) By Worthy Boy and by Volo Song. (c) By Morse Hanover.

Little Brown Jug

Three-year-old pacers. Raced at Delaware County Fair Grounds, Delaware, Ohio.

Year	Winner	Driver	Best time	Total Purse
1946	Ensign Hanover	Wayne Smart	(a)2:02 3/4	\$35,358.65
1947	Forbes Chief	Del Cameron	2:05	38,200.00
1948	Knight Dream	Frank Safford	2:07 1/5	47,528.58
1949	Good Time	Frank Ervin	2:03 2/5	58,281.30
1950	Dudley Hanover	Del Miller	2:02 3/5	56,525.47
1951	Tar Heel	Del Cameron	2:00	66,280.55
1952	Meadow Rice	Wayne Smart	2:01 3/5	60,463.35
1953	Keystoner	Frank Ervin	(b)2:02 3/5	54,972.21
1954	Adios Harry	Morris MacDonald	(c)2:01 2/5	69,332.06
1955	Quick Chief	Bill Houghton	(d)2:00	66,608.83
1956	Noble Adios	John Simpson	2:00 4/5	52,666.05
1957	Torpid	John Simpson	2:00 4/5	73,528.15
1958	Shadow Wave	Joe O'Brien	2:01	65,252.94

(a) By Royal Chief. (b) By Newport Chief. (c) By Phantom Lady. (d) By Dottie's Pick.

RECORD FOR THE MILE SINCE 1900

TROTTERS				
Time	Trotter, age, driver	Year	Time	Greyhound, 5, Sep Palin
2:03 1/4	The Abbot, 7, E. F. Geers	1900	1:56	Greyhound, 5, Sep Palin
2:02 3/4	Cresceus, 7, G. H. Ketcham	1901	1:56 1/4	Greyhound, 6, Sep Palin
2:02 1/4	Cresceus, 7, G. H. Ketcham	1901		
2:00	Lou Dillon, 5, Millard Sanders	1903	Time	PACERS
1:58 1/2	Lou Dillon, 5, Millard Sanders	1903	1:59	Pacer, age, driver
1:58	Uhlan, 8, Charles Tanner	1912	1:56 1/4	Year
1:58	Peter Manning, 5, T. W. Murphy	1921	1:56	Dan Patch, 7, M. E. McHenry
1:57 1/2	Peter Manning, 5, T. W. Murphy	1921	1:55 1/4*	Dan Patch, 7, M. E. McHenry
1:57	Peter Manning, 6, T. W. Murphy	1922	1:55	Dan Patch, 8, H. C. Hersey
1:56 1/4	Peter Manning, 6, T. W. Murphy	1922	1:55	Dan Patch, 9, H. C. Hersey
				1903
				1904
				1905
				1938
				1955

* With windshield.

COLLEGE COLORS AND NICKNAMES

Air Force—Silver-Blue; Falcons
 Akron—Blue-Gold; Zips
 Alabama—Crimson-White; Crimson Tide
 Alfred—Purple-Gold; Saxons
 Amherst—Purple-White; Lord Jeffs
 Arizona—Crimson-Blue; Wildcats
 Arizona State (Tempe)—Maroon-Gold; Sun Devils
 Arkansas—Cardinal-White; Razorbacks
 Army—Black-Gold-Gray; Cadets
 Auburn—Orange-Blue; Tigers
 Baylor—Green-Gold; Bears
 Boston Coll.—Maroon-Gold; Eagles
 Boston U.—Scarlet-White; Terriers
 Bowdoin—White; Polar Bears
 Bowling Green—Brown-Orange; Falcons
 Bradley—Cardinal-White; Braves
 Brigham Young—Blue-White; Cougars
 Brooklyn—Maroon-Gold; Kingsmen
 Brown—Brown-White; Bruins
 Bucknell—Orange-Blue; Bisons
 Buffalo—Blue-White; Bulls
 Butler—Blue-White; Bulldogs
 California—Blue-Gold; Bears
 Canisius—Blue-Gold; Griffins
 Carnegie Tech—Tartan Plaid; Tartans
 Catholic—Red-Black; Cardinals
 Centre—Gold-White; Colonels
 Chicago—Maroon; Maroons
 Cincinnati—Red-Black; Bearcats
 Citadel—Blue-White; Bulldogs
 City Coll. of N. Y.—Lavender; Beavers
 Clemson—Purple-Orange; Tigers
 Coast Guard—Blue-White; Cadets
 Colgate—Maroon; Red Raiders
 Coll. of Pacific—Orange-Black; Tigers
 Colorado—Silver-Gold; Buffaloes
 Columbia—Blue-White; Lions
 Connecticut—Blue-White; Huskies, Uconn
 Cornell—Carnelian-White; Big Red
 Creighton—White-Blue; Blue Jays
 Dartmouth—Green; Indians
 Davidson—Red-Black; Wildcats
 Dayton—Red-Blue; Flyers
 Delaware—Blue-Gold; Blue Hens
 Denver—Red-Gold; Pioneers
 DePaul—Scarlet-Blue; Blue Demons
 Detroit—Cardinal-Blue; Titans
 Drake—White-Blue; Bulldogs
 Duke—Blue-White; Blue Devils
 Duquesne—Red-Blue; Dukers
 Florida—Orange-Blue; Gators
 Franklin & Marshall—Blue-White; Diplomats
 Fordham—Maroon; Rams
 Furman—Purple-White; Purple Hurricane
 Georgetown—Blue-Gray; Hoyas
 George Washington—Buff-Blue; Colonials
 Georgia—Red-Black; Bulldogs
 Georgia Tech—White-Gold; Yellow Jackets
 Gonzaga—Blue-White; Bulldogs
 Hamilton—Buff-Blue; Continentals
 Hampden-Sydney—Garnet-Gray; Tigers
 Hardin-Simmons—Purple-Gold; Cowboys
 Harvard—Crimson; The Crimson
 Hobart—Orange-Purple; Statesmen

Holy Cross—Purple; Crusaders
 Houston—Scarlet-White; Cougars
 Howard—Blue-White; Bisons
 Idaho—Silver-Gold; Vandals
 Illinois—Orange-Blue; Illini
 Indiana—Cream-Crimson; Hoosiers
 Iowa—Gold-Black; Hawkeyes
 Iowa State—Cardinal-Gold; Cyclones
 Johns Hopkins—Blue-Black; Blue Jays
 Kansas—Crimson-Blue; Jayhawkers
 Kansas State—Purple-White; Wildcats
 Kentucky—Blue-White; Wildcats
 Knox—Purple-Gold; Siwashers
 Lafayette—Maroon-White; Leopards
 La Salle—Blue-Gold; Explorers
 Lehigh—Brown-White; Engineers
 Louisiana State—Purple-Gold; Tigers
 Louisville—Cardinal-Black; Cardinals
 Loyola (Ill.)—Maroon-Gold; Ramblers
 Maine—Blue-White; Black Bears
 Manhattan—Green-White; Jaspers
 Marquette—Blue-Gold; Warriors
 Maryland—Red-White; Terrapins
 Massachusetts—Maroon-White; Redmen
 Merchant Marine—Blue-Gray; Mariners
 Miami (Fla.)—Orange-Green-White; Hurricanes
 Miami (Ohio)—Red-White; Redskins
 Michigan—Maize-Blue; Wolverines
 Michigan State—Green-White; Spartans
 Middlebury—Blue-White; Panthers
 Minnesota—Maroon-Gold; Gophers
 Mississippi—Red-Blue; Rebels
 Mississippi State—Maroon-White; Maroons
 Missouri—Black-Gold; Tigers
 M.I.T.—Cardinal-Gray; Beavers
 Montana—Copper-Silver-Gold; Grizzlies
 Navy—Blue-Gold; Midshipmen
 Nebraska—Scarlet-Cream; Cornhuskers
 Nevada—Silver-Blue; Wolfpack
 New Hampshire—Blue-White; Wildcats
 New Mexico—Cherry-Silver; Lobos
 New York U.—Violet; Violets
 Niagara—Purple-White; Purple Eagles
 North Carolina—Blue-White; Tar Heels
 North Carolina State—Scarlet-White; Wolfpack
 North Dakota—Green-White; Sioux
 Northeastern—Red-Black; Huskies
 Northwestern—Purple-White; Wildcats
 Notre Dame—Blue-Gold; Fighting Irish
 Occidental—Orange-Black; Bengals
 Ohio State—Scarlet-Gray; Buckeyes
 Ohio U.—Green-White; Bobcats
 Oklahoma—Red-White; Sooners
 Oklahoma State—Orange-Black; Cowboys
 Omaha—Red-Black; Indians
 Oregon—Yellow-Green; Webfoots
 Oregon State—Orange-Black; Beavers
 Penn State—Blue-White; Nittany Lions
 Pennsylvania—Red-Blue; Quakers
 Pittsburgh—Blue-Gold; Panthers
 Princeton—Orange-Black; Tigers
 Providence—Black-White; Friars
 Purdue—Gold-Black; Boilermakers
 Rhode Island—Blue-White; Rams
 Rice—Blue-Gray; Owls

Richmond—Red-Blue; Spiders
 Rochester—Yellow; Yellowjackets
 Rollins—Blue-Gold; Tars
 R.P.I.—Cherry-White; Engineers
 Rutgers—Scarlet; The Scarlet
 St. Francis (N. Y.)—Red-Blue; Terriers
 St. John's (N. Y.)—Red-White; Redmen
 St. Joseph's (Pa.)—Crimson-Gray; Hawks
 St. Lawrence—Scarlet-Brown; Larries
 St. Louis—Blue-White; Billikens
 St. Mary's (Calif.)—Red-Blue; Galloping Gaiels
 San Francisco—Green-Gold; Dons
 San Jose State—Gold-White; Spartans
 Santa Clara—Cardinal-White; Broncos
 Seattle—Maroon-White; Chieftains
 Seton Hall—Blue-White; Pirates
 Sewanee—Purple-White; Tigers
 South Carolina—Garnet-Black; Gamecocks
 South Dakota—Scarlet-White; Coyotes
 So. California—Cardinal-Gold; Trojans
 So. Methodist—Red-Blue; Mustangs
 Springfield—Maroon-White; Maroons
 Stanford—Cardinal-White; Indians
 Swarthmore—Garnet; Little Quakers
 Syracuse—Orange; Orangemen
 Temple—Cherry-White; Owls
 Tennessee—Orange-White; Vols
 Texas—Orange-White; Longhorns
 Texas A. & M.—Maroon-White; Aggies
 Texas Christian—Purple-White; Horned Frogs
 Texas Tech—Scarlet-Black; Red Raiders
 Toledo—Blue-Gold; Rockets
 Tufts—Blue-Brown; Jumbos
 Tulane—Green-Blue; Green Wave
 Tulsa—Crimson-Blue-Gold; Golden Hurricane
 Tuskegee—Gold-Crimson; Golden Tigers
 U.C.L.A.—Blue-Gold; Bruins
 Utah—Crimson-White; Utes
 Utah State—Blue-White; Aggies
 Vanderbilt—Gold-Black; Commodores
 Vermont—Green-Gold; Catamounts
 Villanova—Blue-White; Wildcats
 Virginia—Blue-Orange; Cavaliers
 V.M.I.—Red-White-Yellow; Keydets
 V.P.I.—Orange-Maroon; Gobblers
 Wake Forest—Gold-Black; Demon Deacons
 Washington & Lee—Blue-White; Generals
 Washington (Mo.)—Myrtle-Maroon; Bears
 Washington (Wash.)—Purple-Gold; Huskies
 Washington State—Crimson-Gray; Cougars
 Wayne State—Green-Gold; Tartars
 Wesleyan—Cardinal-Black; Cardinals
 Western Reserve—Red-White; Red Cats
 W. Virginia—Gold-Blue; Mountaineers
 Wichita—Black-Gold; Wheatshockers
 William & Mary—Green-Gold-Silver; Indians
 Williams—Royal Purple; Ephmen
 Wisconsin—Cardinal; Badgers
 Wyoming—Brown-Gold; Cowboys
 Yale—Blue; Bulldogs, Elis

ICE HOCKEY

National Hockey League

REGULAR SEASON

Final Standing of the Clubs

	Goals				
	W	L	T	For	Agst. Pts.
Montreal Canadiens.....	39	18	13	258	158 91
Boston Bruins.....	32	29	9	205	215 73
Chicago Black Hawks.....	28	29	13	197	208 60
Toronto Maple Leafs.....	27	32	11	189	201 65
New York Rangers.....	26	32	12	201	217 64
Detroit Red Wings.....	25	37	8	167	218 58

Leading Scorers

	GP	G	A	Pts.	PIM
Dickie Moore, Montreal.....	70	41	55	96	61
Jean Beliveau, Montreal.....	64	45	48	91	67
Andy Bathgate, New York.....	70	40	44	88	48
Gordie Howe, Detroit.....	70	32	46	78	57
Ed Litzenberger, Chicago.....	70	33	44	77	37
Bernie Geoffrion, Montreal.....	59	22	44	66	30
George Sullivan, New York.....	70	21	42	63	56
Andy Hebenton, New York.....	70	33	28	62	8
Don McKenney, Boston.....	70	32	39	62	20
Ted Slean, Chicago.....	59	27	36	62	79
Vic Stasiuk, Boston.....	70	27	33	60	63
Johnny Bucyk, Boston.....	69	24	36	60	36
Ted Lindsay, Chicago.....	70	22	38	58	184
Camille Henry, New York.....	70	23	35	58	2
Norm Ullman, Detroit.....	69	22	36	58	42
Alex Delvecchio, Detroit.....	70	19	35	54	6
Dick Duff, Toronto.....	69	29	24	53	73
Billy Harris, Toronto.....	70	22	38	52	29
Henri Richard, Montreal.....	63	21	20	51	33
Bill Gadsby, New York.....	70	5	46	51	56
Bobby Hull, Chicago.....	70	18	32	50	50
Dean Prentice, New York.....	70	17	33	50	11
Frank Mahovlich, Toronto.....	63	22	27	49	94
Ron Murray, Chicago.....	59	17	30	47	52
Jerry Teppazzini, Boston.....	70	21	23	44	61
Marcel Bonin, Montreal.....	57	13	30	43	38
Bert Olmstead, Toronto.....	70	10	31	41	74
Ralph Backstrom, Montreal.....	64	18	22	40	19
Fleming Mackell, Boston.....	57	17	23	40	28
Bronco Horvath, Boston.....	45	19	20	39	58
Tom Johnson, Montreal.....	70	10	29	39	76
Maurice Richard, Montreal.....	42	17	21	38	27
Claude Provost, Montreal.....	69	16	22	38	37
Bob Pulford, Toronto.....	70	23	14	37	53
Pierre Pilote, Chicago.....	70	7	30	37	79
George Armstrong, Toronto.....	59	20	16	36	37
Ab McDonald, Montreal.....	69	13	23	36	12
Larry Regan, Boston.....	68	9	27	36	12
Ron Stewart, Toronto.....	70	21	13	34	23
Eric Nesterenko, Chicago.....	70	16	18	34	81
Larry Peplun, New York.....	61	13	21	34	28

Official All-N. H. L. Selections

FIRST TEAM	Pos.	SECOND TEAM
Jacques Plante, Mont.....	G.....	Terry Sawchuk, Det.
Tom Johnson, Mont.....	D.....	Marcel Pronovost, Det.
Bill Gadsby, New York.....	D.....	Doug Harvey, Mont.
Jean Beliveau, Mont.....	C.....	Henri Richard, Mont.
Andy Bathgate, New York.....	R.W.....	Gordie Howe, Det.
Dickie Moore, Mont.....	L.W.....	Alex Delvecchio, Det.

Trophy Winners

Hart (most valuable player)—Andy Bathgate, New York
 Ross (leading scorer)—Dickie Moore, Montreal
 Lady Byng (sportsmanship)—Alex Delvecchio, Detroit
 Calder (leading rookie)—Ralph Backstrom, Montreal
 Vezina (leading goalie)—Jacques Plante, Montreal
 Norris (best defenseman)—Tom Johnson, Montreal

Fourth Straight Cup Victory

By winning the Stanley Cup in 1959, the Montreal Canadiens became the first team ever to gain possession of the famed trophy, emblematic of the world championship, for four consecutive years. The cup has been in competition since 1894.

STANLEY CUP PLAYOFFS

Preliminary Series

Montreal defeated Chicago, 4 games to 2.

- *March 24—Montreal 4, Chicago 2
- *March 26—Montreal 5, Chicago 1
- March 28—Chicago 4, Montreal 2
- March 31—Chicago 3, Montreal 1
- *April 2—Montreal 4, Chicago 2
- April 4—Montreal 5, Chicago 4
- * At Montreal.

Toronto defeated Boston, 4 games to 3.

- *March 24—Boston 5, Toronto 1
- *March 26—Boston 4, Toronto 2
- March 28—Toronto 3, Boston 2 (5:02 overtime)
- March 31—Toronto 3, Boston 2 (11:21 overtime)
- *April 2—Toronto 4, Boston 1
- April 4—Boston 5, Toronto 4
- *April 7—Toronto 3, Boston 2
- * At Boston.

Championship Series

Montreal won the Stanley Cup, defeating Toronto, 4 games to 1.

- *April 9—Montreal 5, Toronto 3
- *April 11—Montreal 3, Toronto 1
- April 14—Toronto 3, Montreal 2 (10:06 overtime)
- April 16—Montreal 3, Toronto 2
- *April 18—Montreal 5, Toronto 3
- * At Montreal.

Leading Scorers

	GP	G	A	Pts.	PIM
Dickie Moore, Montreal.....	11	5	12	17	8
Marcel Bonin, Montreal.....	11	10	5	15	4
Gerry Ehman, Toronto.....	12	6	7	13	8
Bernie Geoffrion, Montreal.....	11	5	8	13	10
Doug Harvey, Montreal.....	11	1	11	12	22
Frank Mahovlich, Toronto.....	12	6	5	11	18
Henri Richard, Montreal.....	11	3	8	11	13
Claude Provost, Montreal.....	11	6	2	8	2
Bob Pulford, Toronto.....	12	4	4	8	8
Tod Sloan, Chicago.....	6	3	5	8	0
Ed Litzenberger, Chicago.....	6	3	5	8	8
Ralph Backstrom, Montreal.....	11	3	5	8	12
Fleming Mackell, Boston.....	7	2	6	8	8
Dick Duff, Toronto.....	12	4	3	7	8
Billy Harris, Toronto.....	12	3	4	7	16
Don McKenney, Boston.....	7	2	5	7	0
Jerry Teppazzini, Boston.....	7	4	2	6	0
Vic Stasiuk, Boston.....	7	4	2	6	11
Bert Olmstead, Toronto.....	12	4	2	6	13
Ron Stewart, Toronto.....	12	3	3	6	6
John Bucyk, Boston.....	7	2	4	6	6
Ted Lindsay, Chicago.....	6	2	4	6	13
Jim Morrison, Boston.....	6	0	6	6	16
Carl Brewer, Toronto.....	12	0	6	6	40

Moore Batters Howe's Record

The 96 points scored by Dickie Moore of the Montreal Canadiens in the 1958-59 National Hockey League season bettered the league record of 95 established by Gordie Howe of the Detroit Red Wings in 1952-53.

Minor League Hockey**AMERICAN LEAGUE****Final Standing of the Clubs**

	W	L	T	Goals		Pts.
				For	Agst.	
Buffalo.....	38	28	4	233	201	80
Cleveland.....	37	30	3	261	252	77
Rochester.....	34	31	5	242	209	73
Hershey*.....	32	32	6	200	202	70
Springfield.....	30	38	2	253	282	62
Providence.....	28	40	2	222	265	58

* Won playoffs.

Leading Scorers

	GP	G	A	Pts.	PIM
Bill Hicke, Rochester.....	69	41	56	97	41
Ken Schinkel, Springfield.....	70	43	42	85	19
Rudy Migay, Rochester.....	61	24	68	82	100
Harry Pidhirny, Springfield.....	70	21	60	81	26
Gary Aldcorn, Rochester.....	66	37	42	79	52

WESTERN LEAGUE**PRAIRIE DIVISION**

	W	L	T	Goals		Pts.
				For	Agst.	
Calgary.....	42	21	1	263	196	85
Edmonton.....	33	28	3	205	206	69
Winnipeg.....	31	31	2	256	229	64
Saskatoon.....	29	31	4	208	201	62

COAST DIVISION

	W	L	T	For	Agst.	Pts.
Seattle*.....	40	27	3	277	225	83
Vancouver.....	31	28	11	219	214	73
Victoria.....	30	36	4	219	254	64
Spokane.....	26	38	6	217	275	58
New Westminster.....	23	45	2	237	301	48

* Won playoffs.

Leading Scorers

	GP	G	A	Pts.	PIM
Guyle Fielder, Seattle.....	69	24	95	119	18
Eddie Dorohoy, Calgary.....	64	35	74	109	66
Lou Jankowski, Calgary.....	64	46	47	92	13
Bill Miesienko, Winnipeg.....	63	42	46	88	55
Al Nicholson, Victoria.....	69	38	61	87	78

QUEBEC LEAGUE

	W	L	T	Goals		Pts.
				For	Agst.	
Montreal*.....	34	22	6	206	162	74
Three Rivers.....	30	29	3	194	184	63
Chicoutimi.....	30	31	1	238	236	61
Quebec.....	21	33	8	176	232	50

* Won playoffs.

Leading Scorers

	GP	G	A	Pts.	PIM
Grieg Hicks, Chicoutimi.....	59	27	59	86	47
Jacques Locas, Chicoutimi.....	61	49	24	73	73
Jacques Gagnon, Chicoutimi.....	58	25	44	69	59
Lou Smrke, Chicoutimi.....	57	38	32	68	40
Orval Tessier, Three Rivers.....	62	27	39	66	4

CURLINGSource: Glenn Harris, Editor and Publisher, *North American Curling News*, Superior, Wis.**Champions**

- United States—Hibbing, Minn. (Frank Kleffman, skip; Dick Brown, Terry Kleffman, Nick Jerulle)
- Women's United States—Skokie Club Thistles, Glenview, Ill. (Mrs. David Wilson, skip; Mrs. Henry Gardner, Mrs. John Butler, Mrs. Gifford Gardner)
- Canadian—Regina, Sask. (Ernie Richardson, skip; Arnold Richardson, Garnet Richardson, Wes Richardson)

Amateur Hockey**WORLD CHAMPIONSHIP**

(At Prague, Czechoslovakia)

Final Standing of the Clubs

	W	L	T	Goals		Pts.
				For	Agst.	
Canada*.....	4	1	0	21	7	8
U.S.S.R.....	4	1	0	20	10	8
Czechoslovakia.....	3	2	0	22	14	6
United States.....	3	2	0	23	15	6
Sweden.....	1	4	0	6	21	2
Finland.....	0	5	0	7	32	0

* Although Canada and the U.S.S.R. were tied in games won and in games lost, Canada won the championship by having scored more goals.

EASTERN LEAGUE

	W	L	T	Goals		Pts.
				For	Agst.	
Clinton*.....	41	21	2	291	180	84
Johnstown.....	33	28	3	252	223	69
New Haven.....	29	31	4	201	216	62
Philadelphia.....	30	33	1	215	237	61
Washington.....	29	35	0	242	271	58
Charlotte.....	24	38	2	209	283	50

* Won playoffs.

INTERNATIONAL LEAGUE

	W	L	T	Goals		Pts.
				For	Agst.	
Louisville*.....	35	24	1	280	197	71
Fort Wayne.....	32	27	1	236	213	65
Troy.....	30	28	2	245	283	62
Indianapolis.....	26	30	4	231	247	56
Toledo.....	22	36	2	196	248	46

* Won playoffs.

Other Champions

- National Collegiate—North Dakota
- National pee wee—Dollar Bay, Mich.
- Allan Cup (Canadian senior amateur)—Whitby Dunlops
- Memorial Cup (Canadian junior amateur)—Winnipeg Braves

BOBSLEDDING

Source: Lucien Miron, Secy.-Treas., Adirondack Bobsled Club.

World Championships

(At St. Moritz, Switzerland)

- Two-man—Eugenio Monti-Renzo Alvera, Italy..... 5:23.86
- Four-man—United States (Art Tyler, Gary Sheffield, Parker Vooris, Tom Butler)..... 5:10.82
- One-man—Lt. Colin Mitchell, Great Britain..... 5:05.60

North American

(At Lake Placid, N. Y.)

- Two-man—Fred Fortune-Jack Young, Lake Placid B. C..... 4:58.33
- Four-man—Lake Placid Snow Birds (Stanley Benham, James Lamy, Neil Rogers, Charles Pandolph)..... 4:44.84

National A. A. U.

(At Lake Placid, N. Y.)

- Two-man—Tuffy Latour-Forrest Morgan, Saranac Lake B. C..... 5:10.55
- Four-man—Au Sable B. C. (Bucky Snow, Robert Mousseau, Charles Kemp, William Dundon)..... 4:52.28

ICE (SPEED) SKATING

Source: Ken Hall, Detroit Times, American Skating Union Statistician.

World Championships—Men

(At Oslo, Norway)

Champion—Juhani Jarvinen, Finland.....	190.155 pts.
500 meters—Gennadij Voronin, U.S.S.R.....	42.4
1,500 meters—Toivo Salonen, Finland.....	2:15.8
5,000 meters—Jan Posman, Netherlands.....	8:12.1
10,000 meters—Knut Jonhansen, Norway.....	17:00.8

North American Outdoor

(At West Allis, Wis.)

Champion—Keith Meyer, Glen Ellyn, Ill., and Gene Sandvig, Minneapolis.....	12 pts.
220 yds.—Dave Arends, Cedar Rapids, Iowa.....	18.0
440 yds.—Bill Carow, Madison, Wis.....	35.8
880 yds.—Keith Meyer, Glen Ellyn, Ill.....	1:22.2
1/4-mi.—Gene Sandvig, Minneapolis.....	2:12.3
1/2-mi.—Phil Elliott, Chicago.....	3:20.0
2 mi.—Keith Meyer, Glen Ellyn, Ill.....	5:59.1
Intermediate—Tom Weisel, River Hills, Wis.	
Junior—Bob Busse, Madison, Wis.	

WOMEN

Champion—Jeanne Omelenchuk, Detroit.....	25 pts.
220 yds.—Jeanne Omelenchuk, Detroit.....	20.1
440 yds.—Jeanne Omelenchuk, Detroit.....	41.4
880 yds.—Jeanne Omelenchuk, Detroit.....	1:28.9
1/4-mi.—Jeanne Omelenchuk, Detroit.....	2:19.0
1/2-mi.—Jeanne Omelenchuk, Detroit.....	3:04.5
Intermediate—Barbara Lockhart, Chicago	
Junior—Sandra Danielson, Minneapolis	

North American Indoor

(At Lake Placid, N. Y.)

Champion—Don Beam, Binghamton, N. Y.....	17 pts.
440 yds.—Steve Stenson, College Point, N. Y.....	41.8
880 yds.—Steve Stenson, College Point, N. Y.....	1:27.0
1/4-mi.—Don Beam, Binghamton, N. Y.....	2:12.1
1/2-mi.—Dick Ring, Brighton, Mass.....	3:06.4
2 mi.—Dan Mount, College Point, N. Y.....	6:19.9
Intermediate—Charles Ciccarelli, Brooklyn, N. Y.	
Junior—Bob Fenn, Flushing, N. Y.	

WOMEN

Champion—Jean Ashworth, Wilmington, Mass.....	20 pts.
440 yds.—Jean Ashworth, Wilmington, Mass.....	44.2
880 yds.—Jean Ashworth, Wilmington, Mass.....	1:31.4
1/4-mi.—Jean Ashworth, Wilmington, Mass.....	2:38.2
1/2-mi.—Jean Ashworth, Wilmington, Mass.....	3:27.8
Intermediate—Gail Purdy, Glen Falls, N. Y., and Marlene Kurant, Detroit	
Junior—Barbara Sulc, Woodhaven, N. Y.	

World Championships—Women

(At Sverdlovsk, U.S.S.R.)

Champion—Tamara Rylova, U.S.S.R.....	204.916 pts.
500 meters—Tamara Rylova, U.S.S.R., and Sofia Kondakova, U.S.S.R.....	47.5
1,000 meters—Tamara Rylova, U.S.S.R.....	1:41.0
1,500 meters—Inga Artamonova, U.S.S.R.....	2:31.6
3,000 meters—Evi Huttunen, Finland.....	5:30.3

United States Outdoor

(At St. Paul, Minn.)

Champion—Ken Bartholomew, Minneapolis.....	21 pts.
220 yds.—Bill Carow, Madison, Wis.....	19.2
440 yds.—Roland Carlson, Minneapolis.....	36.0
880 yds.—Robert Snyder, Detroit.....	1:16.1
1/4-mi.—Ken Bartholomew, Minneapolis.....	2:20.1
1/2-mi.—Ken Bartholomew, Minneapolis.....	3:04.1
2 mi.—Ken Bartholomew, Minneapolis.....	5:46.6
5 mi.—Ken Bartholomew, Minneapolis.....	16:58.5
Intermediate—Eddie Rudolph, Chicago	
Junior—Bob Busse, Madison, Wis.	

WOMEN

Champion—Jeanne Omelenchuk, Detroit.....	20 pts.
220 yds.—Jeanne Omelenchuk, Detroit.....	21.8
440 yds.—Mary Novak, Lombard, Ill.....	42.0
880 yds.—Jeanne Omelenchuk, Detroit.....	1:24.8
1/4-mi.—Jeanne Omelenchuk, Detroit.....	2:19.3
1/2-mi.—Jeanne Omelenchuk, Detroit.....	3:04.5
Intermediate—Barbara Lockhart, Chicago	
Junior—Sandra Danielson, Minneapolis	

United States Indoor

(At Champaign, Ill.)

Champion—Steve Stenson, College Point, N. Y., and Dick Hunt, Los Angeles.....	19 pts.
440 yds.—Steve Stenson, College Point, N. Y.....	36.3
880 yds.—Steve Stenson, College Point, N. Y.....	1:21.9
1/4-mi.—Steve Stenson, College Point, N. Y.....	2:05.9
1/2-mi.—Dick Hunt, Los Angeles.....	2:55.4
2 mi.—Dick Hunt, Los Angeles.....	6:30.3
Intermediate—Eddie Rudolph, Chicago	
Junior—Bud Campbell, Los Angeles	

WOMEN

Champion—Jean Ashworth, Wilmington, Mass.....	20 pts.
440 yds.—Jean Ashworth, Wilmington, Mass.....	41.4
880 yds.—Jean Ashworth, Wilmington, Mass.....	1:26.2
1/4-mi.—Jean Ashworth, Wilmington, Mass.....	2:21.3
1/2-mi.—Jean Ashworth, Wilmington, Mass.....	3:14.8
Intermediate—Marlene Mathis, Chicago	
Junior—Barbara Mueller, West Allis, Wis.	

ICE (FIGURE) SKATING

World Championships

(At Colorado Springs, Colo.)

Men—David Jenkins, Colorado Springs, Colo.	
Women—Carol Heiss, Ozone Park, N. Y.	
Pairs—Barbara Wagner—Robert Paul, Canada	
Dance—Doreen Denny—Courtney Jones, Great Britain	

North American Championships

(At Toronto)

Men—Don Jackson, Canada	
Women—Carol Heiss, Ozone Park, N. Y.	
Pairs—Barbara Wagner—Robert Paul, Canada	
Dance—Geraldine Fenton—William McLachlan, Canada	

United States Championships

(At Rochester, N. Y.)

Men—David Jenkins, Colorado Springs, Colo.	
Women—Carol Heiss, Ozone Park, N. Y.	
Pairs—Nancy and Ronald Ludington, Roxbury, Mass.	
Silver dance—Marilyn Meeker—Larry Pierce, Indianapolis	
Gold dance—Andree and Donald Jacoby, Syracuse, N. Y.	
Junior—Gregory Kelley, Newton Center, Mass.	
Women's Junior—Laurence Owen, Winchester, Mass.	
Junior pairs—Julienne and Jerry Fothergill, Tacoma, Wash.	
Novice—Monty Hoyt, Denver	
Women's novice—Mary Batdorf, Lebanon, Pa.	
Team—Broadmoor F.S.C., Colorado Springs, Colo.	

TRACK AND FIELD

National A. A. U. Championships

Men's Indoor (At New York City)

60 yds.—Paul Winder, Morgan State.....	6.1
60-yd. high hurdles—Ellas Gilbert, Winston-Salem.....	7.3
600 yds.—Josh Culbreath, Philadelphia Pioneer Club.....	1:11.1
1,000 yds.—Zbigniew Orywal, Poland.....	2:12.6
1 mile—Ron Delany, Ireland.....	4:02.5
1-mile walk—John Humcke, New York A. C.....	6:42.2
3 miles—Bill Dellinger, U. S. Air Force.....	13:37.0
1,060-yd. medley relay—Villanova (Ed. Collymore, Joe Manion, Jim Blackburn, Charles Stead).....	1:53.2
1-mile relay—Morgan State (Lou Smith, Tom Anderson, Hosea Smith, Nick Ellis).....	3:16.6
2-mile relay—Yale (Jim Stack, Ned Roche, Ed Slowik, Tom Carroll).....	7:39.8
High jump—John Thomas, Boston University Freshmen.....	7 ft. 1½ in.
Broad jump—Mike Herman, New York University.....	25 ft. ¾ in.
Pole vault—Don Bragg, Shanahan C. C., Philadelphia.....	15 ft. 1 in.
Shot put—Parry O'Brien, So. California Striders.....	62 ft. 1¾ in.
35-lb. weight—Bob Backus, New York A. C.....	66 ft. 2¾ in.
Team—New York A. C.....	21½ pts.

Women's Indoor (At Washington, D. C.)

50 yds.—Wilma Rudolph, Tennessee State.....	6.2
70-yd. hurdles—Joan Terry, Tennessee State.....	9.7
100 yds.—Martha Hudson, Tennessee State.....	11.4
220 yds.—Lucinda Williams, Tennessee State.....	26.6
440 yds.—Lillian Green, Police A. L., New York.....	1:03.4
880 yds.—Harriett Douthitt, Cleveland Recreation Dept.....	2:36.3
440-yd. relay—Police A. L., New York (Barbara Brown, Linda Wood, Lillian Green, Louise Mead).....	52.4
440-yd. medley relay—Tennessee State (Wilma Rudolph, Shirley Crowder, Martha Hudson, Lucinda Williams).....	52.3
High jump—Ann Flynn, German-American A. C., New York.....	5 ft. ½ in.
Standing broad jump—Joan Terry, Tennessee State.....	8 ft. 11 in.
Shot put—Marjorie Larney, Queens Mercuriettes, New York.....	39 ft. 7¾ in.
Basketball throw—Amelia Wood, Queens Mercuriettes, New York.....	101 ft. 8½ in.
Team—Tennessee State.....	61½ pts.

Women's Outdoor (At Cleveland)

60 m.—Isabelle Daniels, Tennessee State.....	7.6
80-m. hurdles—Shirley Crowder, Tennessee State.....	11.7
100 m.—Wilma Rudolph, Tennessee State.....	12.1
200 m.—Isabelle Daniels, Tennessee State.....	24.1
400 m.—Kimberly Polson, Spartan A. C., Los Angeles.....	59.0
800 m.—Grace Butcher, Magyar A. C., Cleveland.....	2:21.2
400-m. relay—Tennessee State (Martha Hudson, Isabelle Daniels, Wilma Rudolph, Lucinda Williams).....	47.5
High jump—Lis Josefson, Spartan A. C., Los Angeles.....	5 ft. 4 in.
Broad jump—Margaret Matthews, Tennessee State.....	19 ft. 4½ in.
Shot put—Earlene Brown, Spartan A. C., Los Angeles.....	46 ft. 4¾ in.
Discus—Earlene Brown, Spartan A. C., Los Angeles.....	153 ft. 8 in.
Javelin—Marjorie Larney, Queens Mercuriettes, New York.....	152 ft. 9½ in.
Team—Tennessee State.....	132 pts.

Men's Outdoor (At Boulder, Colo.)

100 m.—Ray Norton, Santa Clara (Calif.) Youth Village.....	10.5
200 m.—Ray Norton, Santa Clara (Calif.) Youth Village.....	20.8
400 m.—Eddie Southern, Texas.....	46.1
800 m.—Tom Murphy, New York A. C.....	1:47.9
1,500 m.—Dyrol Burleson, Oregon Freshmen.....	3:47.5
5,000 m.—Bill Dellinger, U. S. Air Force.....	14:47.6
10,000 m.—Max Truex, So. California Striders.....	31:22.4
3,000-m. steeplechase—Phil Coleman, Chicago T. C.....	9:19.3
3,000-m. walk—Elliott Denman, N. Y. Pioneer Club.....	13:52.2
110-m. high hurdles—Lee Calhoun, No. Carolina College.....	14.0
200-m. low hurdles—Charley Tidwell, Kansas.....	22.6
400-m. hurdles—Dick Howard, New Mexico.....	50.7
High jump—Charles Dumas, So. California Striders.....	6 ft. 9 in.
Broad jump—Greg Bell, Ft. Wayne (Ind.) A. C.....	26 ft. 1¾ in.
Hop, step and jump—Ira Davis, Philadelphia Pioneer Club.....	50 ft. 6½ in.
Pole vault—Don Bragg, Shanahan C. C. Philadelphia.....	15 ft. 3 in.
Shot put—Parry O'Brien, So. California Striders.....	62 ft. 2¾ in.
Discus—Al Oerter, New York A. C.....	186 ft. 5 in.
Javelin—Al Cantello, U. S. Marines.....	246 ft. 9 in.
Hammer—Harold Connolly, So. California Striders.....	216 ft. 10 in.
56-lb. weight—Bob Backus, New York A. C.....	44 ft. 3½ in.

Other Outdoor

Decathlon—C. K. Yang, Taiwan.....	7,549 pts.
Pentathlon—Dixon Farmer, Orinda, Calif.....	3,196 pts.
All-around—Tom Pagan, New York A. C.....	7,874 pts.
20,000 m.—John J. Kelley, Boston A. A.....	1:04:08.6
25,000 m.—John J. Kelley, Boston A. A.....	1:18:00.0
Marathon—John J. Kelley, Boston A. A.....	2:21:54.4
1 hour—Tom Ryan, Culver City (Calif.) A. A.....	11 mi. 314 yd.

RELAYS

(At Buffalo, N. Y.)

440-yd.—Chicago T. C. (Ed Houston, Frank Loomos, Willie May, Ward Miller, Jr.).....	42.5
1 mile—N. Y. Pioneer Club (Glenn Shane, Jim Phipps, Jim Grant, Harry Bright).....	3:14.6
2½-mi. medley—New York A. C. (Tom Murphy, Brian Condon, Peter Close, Ed Moran).....	10:00.4

WALKING

10,000 m.—Bruce MacDonald, N. Y. Pioneer Club.....	49:42.0
15,000 m.—Bruce MacDonald, N. Y. Pioneer Club.....	1:19:51.0
20,000 m.—Rudy Halazu, N. Y. Pioneer Club.....	1:32:36.0
25,000 m.—Rudy Halazu, N. Y. Pioneer Club.....	2:14:04.0
30,000 m.—Ferenc Sipos, Vancouver Olympic Club.....	2:46:20.0
35,000 m.—Ferenc Sipos, Vancouver Olympic Club.....	3:12:44.4
40,000 m.—Ron Laird, N. Y. Pioneer Club.....	3:53:22.5
50,000 m.—Elliott Denman, N. Y. Pioneer Club.....	5:07:47.0

ROQUE

American Roque League Championships

(At Long Beach, Calif.)

First division—Arm Kapigain, Glendale, Calif.	
Second division—Jack Green, Long Beach, Calif.	
Two-ball, first division—Emmitt Gladish, Los Angeles	
Two-ball, second division—Tom Moga, Glendale, Calif.	
Women's two-ball—Sarah Montague, Long Beach, Calif.	

Track and Field (Cont.)

NATIONAL COLLEGIATE A. A.

(At Lincoln, Neb.)

100 yds.—Charley Tidwell, Kansas.....	9.3
220 yds.—Ray Norton, San Jose State.....	20.9
440 yds.—Eddie Southern, Texas.....	46.4
880 yds.—George Kerr, Illinois.....	1:47.8
1 mile—Jim Grelle, Oregon.....	4:03.9
3 miles—Paul Whiteley, Emporia (Kan.) State.....	13:59.1
3,000-meter steeplechase—John Macy, Houston.....	9:19.1
120-yd. high hurdles—Hayes Jones, Eastern Michigan.....	13.6
220-yd. low hurdles—Hayes Jones, Eastern Michigan.....	22.5
400-meter hurdles—Dick Howard, New Mexico.....	50.6
High jump—Wayne Moss, Oregon State, and Errol Williams, San Jose State.....	6 ft. 9 3/4 in.
Broad jump—Ernie Shelby, Kansas.....	25 ft. 5 in.
Hop, step and jump—Jack Smyth, Houston.....	49 ft. 7 1/4 in.
Pole vault—Jim Graham, Oklahoma State.....	15 ft. 2 in.
Shot put—Carl Shine, Pennsylvania.....	57 ft. 1 1/4 in.
Discus—Dick Cochran, Missouri.....	178 ft.
Javelin—Bill Alley, Kansas.....	240 ft. 5 1/2 in.
Hammer—John Lawlor, Boston U.....	207 ft. 5 in.
Team—Kansas.....	73 pts.

INDOOR MILE WINNERS

All-Eastern, Baltimore—Peter Close, St. John's.....	4:15.3
Massachusetts K. of C.—Ron Delany, Ireland.....	4:08.3
Washington Star—Ed Moran, Penn State.....	4:14.3
Millrose (Wanamaker)—Ron Delany, Ireland.....	4:06.5
Boston A. A. (Hunter)—Ron Delany, Ireland.....	4:04.3
Metropolitan College—Peter Close, St. John's.....	4:13.2
Philadelphia Inquirer—Ron Delany, Ireland.....	4:05.8
New York A. C. (Baxter)—Phil Coleman, Chicago T. C. C.....	4:08.6
National Interscholastic—Robert Mack, Weequahic H. S., Newark, N. J.....	4:22.6
Junior National A. A. U.—Dan Ryan, Western Illinois.....	4:16.0
National A. A. U.—Ron Delany, Ireland.....	4:02.5
I. C. 4-A.—Peter Close, St. John's.....	4:10.1
I. C. 4-A. Special—Ron Delany, Ireland.....	4:07.1
Big Eight—Gail Hodgson, Oklahoma.....	4:13.0
Heptagonal—Ted Benz, Army.....	4:21.3
Central Collegiate—Ron Gregory, Notre Dame.....	4:16.1
New York K. of C. (Columbian)—Ron Delany, Ireland.....	4:01.4
Big Ten—Bob Lake, Michigan State.....	4:10.9
Milwaukee Journal—Ron Delany, Ireland.....	4:05.4
Cleveland K. of C.—Ron Delany, Ireland.....	4:06.6
Chicago Relays (Bankers)—Ron Delany, Ireland.....	4:06.4

BOSTON MARATHON

(26 miles, 385 yards)

1—Eino Oksanen, Finland.....	2:22:42
2—John J. Kelley, Boston A. A.....	2:23:43
3—Gordon Dickson, Hamilton, Ont.....	2:24:04
4—Veiko Karvonen, Finland.....	2:24:37
5—Osvaldo Suarez, Argentina.....	2:28:24

Delany Lowers Indoor Mile Record

Ron Delany of Dublin, Ireland, a Villanova University graduate, lowered the world indoor record for the mile run twice in 1959. Both marks were achieved in Madison Square Garden. On Feb. 21, at the U. S. indoor championships, he was timed in 4:02.5. On March 7, at the New York Chapter Knights of Columbus Games, Delany was clocked in 4:01.4. The previous record, which Delany set in 1958, was 4:03.4. When the '59 season ended, Delany had participated in 34 indoor miles over four seasons and had won them all.

SOVIET UNION VS. UNITED STATES

(At Philadelphia)

United States 127, U.S.S.R. 108

WINNING PERFORMANCES

100 m.—Ray Norton, United States.....	10.3
200 m.—Ray Norton, United States.....	20.7
400 m.—Eddie Southern, United States.....	46.2
800 m.—Tom Murphy, United States.....	1:48.5
1,500 m.—Dyrol Burleson, United States.....	3:49.4
5,000 m.—Aleksandr Artynyuk, U.S.S.R. (Bill Dellinger, United States, placed 3d).....	14:17.8
10,000 m.—Alekssei Desyatchikov, U.S.S.R. (Max Truex, United States, placed 3d).....	31:40.6
3,000-m. steeplechase—Semyon Rzhishchin, U.S.S.R. (Phil Coleman, United States, placed 3d).....	8:51.6
20,000-m. walk—Vladimir Golubnichy, U.S.S.R. (Rudy Hala, United States, placed 3d).....	1:38:20.2
110-m. high hurdles—Hayes Jones, United States.....	13.6
400-m. hurdles—Josh Culbreath, United States.....	50.5
400-m. relay—United States (Bob Poynter, Hayes Jones, Vance Robinson, Ray Norton).....	39.8
1,600-m. relay—United States (Dave Mills, Tom Murphy, Jack Yerman, Eddie Southern).....	3:07.0
High jump—Robert Shaviakidze, U.S.S.R. (Errol Williams, United States, placed 2d).....	6 ft. 9 in.
Broad jump—Greg Bell, United States.....	26 ft. 7 in.
Hop, step and jump—Konstantin Tsygankov, U.S.S.R. (Ira Davis, United States, placed 2d).....	52 ft. 4 in.
Pole vault—Don Bragg, United States.....	15 ft. 2 3/4 in.
Shot put—Parry O'Brien, United States.....	63 ft. 2 1/2 in.
Discus—Al Oerter, United States.....	188 ft. 9 in.
Javelin—Al Cantello, United States.....	262 ft. 5 in.
Hammer—Vasily Rudenkov, U.S.S.R. (Harold Connolly, United States, placed 2d).....	219 ft.
Decathlon—Vasily Kuznetsov, U.S.S.R. (Dave Edstrom, United States, placed 2d).....	8,350 pts.

WOMEN

U.S.S.R. 67, United States 40

100 m.—Barbara Jones, United States.....	11.7
200 m.—Lucinda Williams, United States.....	23.4
800 m.—Lyudmila Lysenko-Shevtsova, U.S.S.R. (Grace Butcher, United States, placed 3d).....	2:11.3
80-m. hurdles—Galina Bystrova, U.S.S.R. (Barbara Mueller, United States, placed 3d).....	11.0
400-m. relay—U.S.S.R. (Vera Krepkina, Valentina Maslovskaya, Nonna Polysakova, Galina Popova).....	44.8
High jump—Taisiya Chenchik, U.S.S.R. (Ana Flynn, United States, placed 3d).....	5 ft. 10 in.
Broad jump—Vera Krepkina, U.S.S.R. (Margaret Matthews, United States, placed 2d).....	20 ft. 3 in.
Shot put—Tamara Press, U.S.S.R. (Earlene Brown, United States, placed 2d).....	55 ft. 6 1/4 in.
Discus—Nina Pono mareva, U.S.S.R. (Earlene Brown, United States, placed 3d).....	181 ft. 1 1/2 in.
Javelin—Birute Kaledene, U.S.S.R. (Marjorie Larney, United States, placed 3d).....	181 ft. 8 in.

VOLLEYBALL

U. S. Volleyball Assn. Championships

(At Des Moines, Iowa)

Open—Hollywood (Calif.) Stars
Masters—Hollywood (Calif.) Comets
Intercollegiate—George Williams College
Women—Santa Monica (Calif.) Mariners

National A. A. U. Championships

Men—U. S. Air Force

INTERCOLLEGIATE CONFERENCE TEAM CHAMPIONS

National Collegiate Athletic Association (N. C. A. A.)

Baseball—Oklahoma State
Basketball—California (university division); Evansville, Ind. (college division)
Boxing—San Jose State
Fencing—Navy
Golf—Houston
Gymnastics—Penn State

Ice hockey—North Dakota
Skiing—Colorado
Swimming—Michigan
Tennis—Tulane, Notre Dame (tie)
Track and field—Kansas
Wrestling—Oklahoma State

(For individual champions, see index for specific sports)

ATLANTIC COAST

Baseball—Clemson
Basketball—North Carolina State
Golf—Duke
Lacrosse—Maryland
Swimming—North Carolina
Tennis—North Carolina
Track and field—Maryland (indoor and outdoor)
Wrestling—Maryland

BIG EIGHT

Baseball—Oklahoma State
Basketball—Kansas State
Golf—Oklahoma State
Swimming—Oklahoma
Tennis—Oklahoma State
Track and field—Kansas (indoor and outdoor)
Wrestling—Oklahoma State

BIG TEN

Baseball—Minnesota
Basketball—Michigan State
Fencing—Wisconsin
Golf—Purdue
Gymnastics—Illinois
Ice hockey—Michigan State
Swimming—Michigan
Tennis—Michigan
Track and field—Michigan (indoor), Illinois (outdoor)
Wrestling—Minnesota

BORDER

Baseball—Arizona
Basketball—Arizona State, New Mexico State and Texas Western (tie)
Golf—Arizona State
Rifle—Arizona State
Tennis—Arizona
Track and field—Arizona

EASTERN COLLEGE

Eastern Baseball League—Navy
Intercollegiate Fencing Association—New York University
Eastern Golf Association—Yale
Eastern Gymnastic League—Penn State
Eastern Association of Rowing Colleges—Harvard
Intercollegiate Rowing Association—Wisconsin
Eastern Swimming League—Yale
Eastern Tennis Association—Yale

Heptagonal Games Association, track and field—Yale (indoor and outdoor)
I. C. A. A. A., track and field—Penn State (indoor and outdoor)
Metropolitan Track and Field Association—Manhattan (indoor), New York University (outdoor)
Eastern Wrestling Association—Lehigh

IVY LEAGUE

Basketball—Dartmouth
Fencing—Princeton, Yale (tie)
Golf—Yale
Ice hockey—Dartmouth
Lacrosse—Princeton
Wrestling—Cornell

MASON-DIXON

Baseball—Hampden-Sidney
Basketball—American (tournament), Baltimore (league)
Golf—Hampden-Sidney (tournament), Baltimore (dual meet)
Swimming—American
Tennis—Johns Hopkins
Track and field—Catholic
Wrestling—Baltimore (tournament and dual meet)

MID-AMERICAN

Baseball—Western Michigan, Ohio (tie)
Basketball—Miami (Ohio), Bowling Green State (tie)
Golf—Ohio
Swimming—Bowling Green State
Tennis—Western Michigan
Track and field—Western Michigan
Wrestling—Bowling Green State

MISSOURI VALLEY

Baseball—Bradley
Basketball—Cincinnati
Golf—Houston
Swimming—Cincinnati
Tennis—Wichita
Track and field—Houston

MOUNTAIN STATES

Baseball—Utah
Basketball—Utah
Golf—New Mexico
Swimming—Wyoming
Tennis—Wyoming
Track and field—Brigham Young
Wrestling—Wyoming

N.A.I.A.

Baseball—Southern
Basketball—Tennessee State
Golf—Western Illinois
Swimming—Eastern Carolina
Tennis—Lamar Tech
Track and field—Winston Salem
Wrestling—Mankato State

NATIONAL JR. COLLEGE

Baseball—Paris, Tex.
Basketball—Weber, Utah
Track and field—Hutchinson, Kan.

PACIFIC COAST

Baseball—Southern California
Basketball—California
Golf—Oregon
Tennis—U. C. L. A.
Track and field—Southern California

SOUTHEASTERN

Baseball—Mississippi
Basketball—Mississippi State
Golf—Georgia
Swimming—Florida
Tennis—Tulane
Track and field—Louisiana State

SOUTHERN

Baseball—George Washington
Basketball—West Virginia
Golf—George Washington
Rifle—The Citadel
Tennis—George Washington
Track and field—V. M. I. (indoor), The Citadel (outdoor)
Wrestling—West Virginia

SOUTHWEST

Baseball—Texas A. & M.
Basketball—Texas Christian
Golf—Texas Tech
Swimming—Southern Methodist
Tennis—Rice
Track and field—Texas

YANKEE

Baseball—Connecticut
Basketball—Connecticut
Golf—Connecticut
Relay—Rhode Island
Rifle—Maine
Tennis—Massachusetts
Track and field—Connecticut

SWIMMING

National A. A. U. Championships

Men's Indoor

(At New Haven, Conn.)

100-yd. free—Lance Larson, So. California Freshmen	51.0
220-yd. free—Murray Rose, Southern California	2:02.2
440-yd. free—Murray Rose, Southern California	4:18.8
1,500-meter free—Murray Rose, Southern California	18:18.4
100-yd. back—Charles Bittick, Southern California	55.5
220-yd. back—Frank McKinney, Bloomington, Ind.	2:16.1
100-yd. breast—Norbert Rumpel, Southern Illinois	1:04.9
220-yd. breast—Norbert Rumpel, Southern Illinois	2:36.1
100-yd. butterfly—Frank Legacki, Ann Arbor, Mich.	53.6
220-yd. butterfly—Mike Troy, Bloomington, Ind.	2:18.6
200-yd. medley—Joe Hunsaker, San Jose, Calif.	2:07.0
400-yd. medley—George Harrison, Stanford, Calif.	4:35.8
400-yd. freestyle relay—Southern California (Tom Winters, Don Redington, Murray Rose, Jon Henricks)	3:21.1
400-yd. medley relay—New Haven (Conn.) S. C. (James Dolbey, Joe Koletskey, Tim Jecko, Elton Follett)	3:47.0
1-meter dive—Sam Hall, Columbus, Ohio	493.35 pts.
3-meter dive—Jozsef Gerlach, Ann Arbor, Mich.	505.7 pts.
Team—Southern California	62 pts.

Men's Outdoor

(At Los Altos and San Francisco, Calif.)

100-m. free—Jeff Farrell, Yale Naval R. O. T. C.	56.9
200-m. free—Jeff Farrell, Yale Naval R. O. T. C.	2:06.9
400-m. free—Alan Somers, Indianapolis A. C.	4:30.6
1,500-m. free—Alan Somers, Indianapolis A. C.	17:51.3
100-m. back—Frank McKinney, Indianapolis A. C.	1:03.6
200-m. back—Frank McKinney, Indianapolis A. C.	2:17.9
100-m. breast—Manuel Sanguly, Columbus, Ohio	1:14.6
200-m. breast—Ronald Clark, Detroit A. C.	2:45.6
100-m. butterfly—Lance Larson, Los Angeles A. C.	1:01.1
200-m. butterfly—Mike Troy, Indianapolis A. C.	2:16.4
200-m. medley—Lance Larson, Los Angeles A. C.	2:24.7
400-m. medley—Bill Barton, Indianapolis A. C.	5:14.6
400-m. medley relay—Detroit A. C. (John Smith, Dave Gillanders, Ronald Clark, Carl Woolley)	4:21.9
800-m. freestyle relay—Indianapolis A. C. (Alan Somers, Denny O'Neil, George Breen, Mike Troy)	8:35.9
3-m. dive—Don Harper, Cincinnati	532.3 pts.
Platform dive—Gary Tobian, Los Angeles A. C.	463.1 pts.
Team—Indianapolis A. C.	102 pts.

NATIONAL COLLEGIATE

(At Ithaca, N. Y.)

50-yd. free—Fred Westphal, Wisconsin	22.3
100-yd. free—Frank Legacki, Michigan	49.6
220-yd. free—Richard Hanley, Michigan	2:04.3
440-yd. free—William Steuart, Michigan State	4:31.9
1,500-meter free—William Steuart, Michigan State	18:26.2
100-yd. back—Frank McKinney, Indiana	56.1
200-yd. back—Frank McKinney, Indiana	2:01.4
100-yd. breast—Gordon Collet, Oklahoma	1:03.2
200-yd. breast—William Mulliken, Miami (Ohio)	2:21.3
100-yd. butterfly—Dave Gillanders, Michigan	54.1
200-yd. butterfly—Dave Gillanders, Michigan	2:02.5
200-yd. medley—George Harrison, Stanford	2:06.7
400-yd. freestyle relay—Michigan (John McGuire, Carl Woolley, Richard Hanley, Frank Legacki)	3:21.6
400-yd. medley relay—Michigan (John Smith, Ronald Clark, Dave Gillanders, Richard Hanley)	3:46.1
1-meter dive—Ronald O'Brien, Ohio State	468.95 pts.
3-meter dive—Sam Hall, Ohio State	465.1 pts.
Team—Michigan	137½ pts.

Women's Indoor

(At West Palm Beach, Fla.)

100-yd. free—Shirley Stobs, Miami Shores C. C., Fla.	57.7
250-yd. free—Molly Botkin, Los Angeles A. C.	2:44.4
500-yd. free—Sylvia Ruuska, Berkeley (Calif.) Y.M.C.A.	5:46.6
100-yd. back—Carin Cone, U. of Houston	1:04.3
200-yd. back—Carin Cone, U. of Houston	2:20.2
100-yd. breast—Linda Clark, Los Angeles	1:13.6
250-yd. breast—Susan Ordogh, Washington A. C., Seattle	3:24.3
100-yd. butterfly—Nancy Ramey, Washington A. C., Seattle	1:02.0
200-yd. butterfly—Becky Collins, Indianapolis Riviera Club	2:16.8
400-yd. medley—Sylvia Ruuska, Berkeley (Calif.) Y.M.C.A.	4:58.2
400-yd. freestyle relay—Berkeley (Calif.) Y.M.C.A. (Ann Bancroft, Carolyn Schuler, Patricia Ruuska, Sylvia Ruuska)	3:59.5
400-yd. medley relay—Berkeley (Calif.) Y.M.C.A. (Ann Bancroft, Carolyn Schuler, Patricia Ruuska, Sylvia Ruuska)	4:25.4
1-meter dive—Irene MacDonald, Los Angeles A. C.	414.15 pts.
3-meter dive—Barbara Gilders, Detroit A. C.	461.5 pts.
Team—Berkeley (Calif.) Y.M.C.A.	78 pts.

Women's Outdoor

(At Redding and San Francisco, Calif.)

110-yd. free—Chris von Saltza, Santa Clara (Calif.) S. C.	1:04.8
220-yd. free—Chris von Saltza, Santa Clara (Calif.) S. C.	2:21.1
440-yd. free—Chris von Saltza, Santa Clara (Calif.) S. C.	4:59.6
1-mile free—Sylvia Ruuska, Berkeley (Calif.) Y.M.C.A.	21:38.9
110-yd. back—Carin Cone, Houston Shamrocks	1:13.3
220-yd. back—Carin Cone, Houston Shamrocks	2:37.9
110-yd. breast—Marianne Hargreaves, Los Angeles Kris Kristensens	1:22.4
220-yd. breast—Ann Warner, Santa Clara (Calif.) S. C.	3:02.4
110-yd. butterfly—Becky Collins, Indianapolis Riviera Club	1:11.2
220-yd. butterfly—Becky Collins, Indianapolis Riviera Club	2:37.0
440-yd. medley—Sylvia Ruuska, Berkeley (Calif.) Y.M.C.A.	5:40.2
440-yd. freestyle relay—Berkeley (Calif.) Y.M.C.A. (Patricia Ruuska, Carolyn Schuler, Ann Bancroft, Sylvia Ruuska)	4:30.9
440-yd. medley relay—Santa Clara (Calif.) S. C. (Chris von Saltza, Anne Warner, Kathy Simecek, Dorey Ransom)	4:59.9
1-meter dive—Irene MacDonald, Los Angeles A. C.	381.75 pts.
3-meter dive—Irene MacDonald, Los Angeles A. C.	467.75 pts.
Platform dive—Paula Jean Myers Pope, Los Angeles	250.7 pts.
Team—Berkeley (Calif.) Y.M.C.A.	76 pts.

Long Distance

Men (4 miles)—Roy Saari, El Segundo, Calif.	1:33:22.0
Women (3 miles)—Donna Graham, Indianapolis Riviera Club	1:15:47.5

LeBel Retains Barrel Jumping Title

Leo LeBel of the University of Hartford retained his world barrel jumping on ice skates championship in 1959 by leaping over 15 barrels for a distance of 25 feet 11¾ inches in competition at the Grossinger (N. Y.) Country Club.

SKIING

Source: Harold A. Grinden, Historian, National Ski Assn.

North American Championships

(At Squaw Valley, Calif.)

ALPINE

Downhill—Bud Werner, Steamboat Springs, Colo.	1:30.4
Slalom—Bud Werner, Steamboat Springs, Colo.	2:13.9
Giant slalom—Christian Pravda, Sun Valley, Idaho	2:00.6
Combined—Bud Werner, Steamboat Springs, Colo.	2:82 pts.

WOMEN

Downhill—Linda Meyers, Mammoth Lakes, Calif.	2:05.2
Slalom—Linda Meyers, Mammoth Lakes, Calif.	2:00.7
Giant slalom—Joan Hannah, Franconia, N. H.	1:39.7
Combined—Beverly Anderson, Mullan, Idaho	3:03 pts.

CROSS COUNTRY

15 kilo.—Pavel Kolchin, U.S.S.R.	54:10.7
30 kilo.—Sixten Jernberg, Sweden	1:52:59.9

OTHER EVENTS

Special jumping—Kalevi Karkinen, Finland	223.7 pts.
Nordic combined—Dmitri Kochkin, U.S.S.R.	464.5 pts.

United States Championships

ALPINE

Downhill—Bud Werner, Steamboat Springs, Colo.	2:16.2
Slalom—Bud Werner, Steamboat Springs, Colo.	2:13.1
Giant slalom—Bud Werner, Steamboat Springs, Colo.	1:59.5
Combined—Bud Werner, Steamboat Springs, Colo.	0.00 pts.

WOMEN

Downhill—Beverly Anderson, Mullan, Idaho	2:08.6
Slalom—Linda Meyers, Mammoth Lakes, Calif.	2:28.6
Giant slalom—Beverly Anderson, Mullan, Idaho	1:40.6
Combined—Linda Meyers, Mammoth Lakes, Calif.	5.40 pts.

CROSS COUNTRY

(At Steamboat Springs, Colo., and Andover, Me.)

15 kilo.—Clarence Servold, Denver	1:01:54.0
30 kilo.—Leo Massa, Matawan, N. J.	2:14:03.0

OTHER EVENTS

Jumping—Willie Erickson, Iron Mountain, Mich.	220.9 pts.
Nordic combined—Alfred Vincelle, Denver	451.2 pts.

National Collegiate A. A.

(At Winter Park, Colo.)

Downhill—Marvin Melville, Utah	1:28.8
Slalom—Marvin Melville, Utah	1:59.0
Combined (Alpine)—Marvin Melville, Utah	100.0 pts.
Cross-country—Clarence Servold, Denver	59:55.0
Jumping—Dave Butts, Colorado	222.0 pts.
Combined (Nordic)—Ted Farwell, Denver	96.7 pts.
Skelmeister—Dave Butts, Colorado	365.8 pts.

TEAM

Downhill—Middlebury	94.5
Champion—Colorado	549.4
Slalom—Dartmouth	91.8
Combined (Alpine)—Dartmouth	92.0
Cross-country—Denver	96.0
Jumping—Denver	96.8
Combined (Nordic)—Denver	94.7

Canadian Wins Snowshoe Title

Nicola Marrone of Montreal won the 1959 world snowshoe racing championship in a five-mile event at Manchester, Pa.

FENCING

Source: Amateur Fencing League of America.

World Championships

(At Budapest)

Individual

Team

Foil	Allan Jay, England	U.S.S.R.
Epee	Bruno Khabarov, U.S.S.R.	Hungary
Saber	Rudolf Karpatti, Hungary	Poland
Women	Emma Efimova, U.S.S.R.	Hungary
Overall		U.S.S.R.

United States Championships

(At Los Angeles)

Foil—Joseph Paletta, U. S. Naval Academy
Epee—Henry Kolowrat, Fencers Club, New York
Saber—Tomas Orley, Pannonia A. C., San Francisco
Women—Maria del Pilar Roldan, Mexico

TEAM

Foil—New York University (Mike Dasaro, Martin Davis, Gene Glazer)
Epee—U. S. Army Modern Pentathlon Team (Larry Anastasi, Paul Pesthy, Richard Stoll)
Saber—Salle Santelli, New York (Robert Blum, Allan Kwartler, Chaba Pallaghy, George Worth)
Three-weapon—Fencers Club, New York (Aubrey Seaman, foil; Abram Cohen and Wally Farber, saber; Henry Kolowrat, epee)
Women—Los Angeles A. C. (Maxine Mitchell, Joan Despars, Frances Talley)
Overall—Fencers Club, New York

National Collegiate A. A.

(At Annapolis, Md.)

Foil—Joseph Paletta, Navy
Epee—Roland Wommack, Navy
Saber—Al Morales, Navy
Team—Navy (Joseph Paletta, Roland Wommack, Al Morales)

Intercollegiate Association

(At New York)

Individual

Team

Foil	Gene Glazer, N. Y. U.	N. Y. U.
Epee	Roland Wommack, Navy	Navy
Saber	Al Morales, Navy	N. Y. U.
Three-weapon		N. Y. U.

Women's Intercollegiate

(At Brooklyn, N. Y.)

Individual—Fran Sidoti, Jersey City State
Team—Paterson (N. J.) State (Dorothy Pohlman, Patricia Dolan, Marilyn Gerber)

LACROSSE

Source: Jack Kelly, Editor, *The Lacrosse Newsletter*, Bay Shore, N. Y.

National Champions

Intercollegiate—Army, Johns Hopkins and Maryland (co-champions)
Open—Mt. Washington, Baltimore
North-South Game—South 10, North 9, at Baltimore

All-America Selections

FIRST TEAM—Goal: Randall Malin, Dartmouth. Defense: Don Tillar, Army; Bob Schwartzberg, Maryland; Bill Morton, Dartmouth. Midfield: Charles Getz, Army; Agostino DiMaggio, Washington College; John Heyd, Princeton. Attack: Billy Morrill, Johns Hopkins; Jim Webster, Johns Hopkins; John Howland, Rutgers.

GOLF

U. S. Open Championship

(At Winged Foot G. C., Mamaroneck, N. Y.)

Bill Casper, Jr., Apple Valley, Calif.	71	68	69	74	282
Bob Rosburg, Palo Alto, Calif.	75	70	67	71	283
Claude Harmon, Mamaroneck, N. Y.	72	71	70	71	284
Mike Souchak, Grossinger, N. Y.	71	70	72	71	284
Doug Ford, Paradise, Fla.	72	69	72	73	286
Arnold Palmer, Ligonier, Pa.	71	69	72	74	286
Ernie Vossler, Midland, Tex.	72	70	72	72	286
Ben Hogan, Fort Worth, Tex.	69	71	71	76	287
Sam Snead, White Sulphur Springs, W. Va.	73	72	67	75	287
Dick Knight, San Diego, Calif.	69	75	73	73	290
Dow Finsterwald, Tequesta, Fla.	69	73	75	74	291
Fred Hawkins, El Paso, Tex.	76	72	69	74	291
Ted Kroll, Sarasota, Fla.	71	73	73	74	291
Gene Littler, San Diego, Calif.	69	70	75	73	291
Dave Marr, Cedarhurst, N. Y.	75	73	69	75	292
Gary Player, South Africa.	71	69	76	76	292

Leaders, at 18 holes: Hogan, Finsterwald, Knight and Littler (69); at 36: Casper (139), Hogan, Palmer and Player (140); at 54: Casper (208), Hogan (211), Palmer, Rosburg and Snead (212).

Other Champions

British Open—Gary Player, South Africa	284
French Open—Dave Thomas, Wales	276
National P. G. A.—Bob Rosburg, Palo Alto, Calif.	277
Masters—Art Wall, Jr., Pocono Manor, Pa.	284
Eastern Open—Dave Ragan, Chattanooga, Tenn.	273
Western Open—Mike Souchak, Grossinger, N. Y.	272
Canadian Open—Doug Ford, Paradise, Fla.	276
Canadian P. G. A.—Stan Leonard, Vancouver, B. C.	*204
World Senior Pro—Willie Goggin, San Jose, Calif.	
P. G. A. Senior—Willie Goggin, San Jose, Calif.	284

* 54 holes.

Other P. G. A. Winners

Los Angeles Open—Ken Venturi, San Francisco	278
Tijuana Open—Ernie Vossler, Midland, Tex.	273
Bing Crosby National—Art Wall, Jr., Pocono Manor, Pa.	279
Thunderbird Invitation—Arnold Palmer, Latrobe, Pa.	266
San Diego Open—Marty Furgol, Lemont, Ill.	274
Phoenix Open—Gene Littler, San Diego, Calif.	268
Tucson Open—Gene Littler, San Diego, Calif.	266
Puerto Rico Open—Pete Cooper, Lakeland, Fla.	282
Texas Open—Wesley Ellis, Jr., Demarest, N. J.	276
Jamaica Open—Ed Oliver, Denver	277
Baton Rouge Open—Howie Johnson, San Marcos, Calif.	283
New Orleans Open—Bill Collins, Baltimore	280
Pensacola Open—Paul Harney, Worcester, Mass.	269
St. Petersburg Open—Cary Middlecoff, Hollywood, Fla.	275
Azalea Open—Art Wall, Jr., Pocono Manor, Pa.	282
Greensboro Open—Dow Finsterwald, Tequesta, Fla.	278
Houston Classic—Jack Burke, Jr., Kiamesha Lake, N. Y.	*277
Tournament of Champions—Mike Souchak, Grossinger, N. Y.	281
Colonial National—Ben Hogan, Fort Worth, Tex.	*285
Oklahoma City Open—Arnold Palmer, Ligonier, Pa.	273
Sam Snead Festival—Sam Snead, White Sulphur Springs, W. Va.	259
Arlington Hotel Open—Gene Littler, San Diego, Calif.	270
Memphis Open—Don Whitt, Borrego Spring, Calif.	*272
Kentucky Derby Open—Don Whitt, Borrego Spring, Calif.	274
Gleneagles Chicago Open—Ken Venturi, San Francisco	273
Buick Open—Art Wall, Jr., Pocono Manor, Pa.	*282
Insurance City Open—Gene Littler, San Diego, Calif.	272
Utah Open—Bob Rosburg, Palo Alto, Calif.	275
Carling Open—Dow Finsterwald, Tequesta, Fla.	276
Motor City Open—Mike Souchak, Grossinger, N. Y.	268
Rubber City Open—Tom Nieporte, Bronxville, N. Y.	267
Miller Open—Gene Littler, San Diego, Calif.	265
Kansas City Open—Dow Finsterwald, Tequesta, Fla.	*275
Dallas Open—Julius Boros, Southern Pines, N. C.	274
El Paso Open—Marty Furgol, Coghill, Ill.	273
Golden Gate Championship Mason Rudolph, Clarksville, Tenn.	275

* Won in playoff.

Amateur

U. S.—Jack Nicklaus, Columbus, Ohio (defeated Charles Coe, Oklahoma City, in final, 1 up)
 British—Deane Beman, Silver Spring, Md. (defeated William Hyndman 3d, Abington, Pa., in final, 3 and 2)
 French—Henri de Lamaze, France (defeated Paul Coste, Jamestown, R. I., in final, 9 and 7)
 Eastern—Ward Wettlaufer, Buffalo, N. Y.
 Western—Ed Updegraff, Tucson, Ariz.
 Southern—Richard Crawford, El Dorado, Ark.
 North and South—Jack Nicklaus, Columbus, Ohio
 Trans-Mississippi—Jack Nicklaus, Columbus, Ohio
 National Collegiate A. A.—Richard Crawford, Houston
 U. S. public links—Bill Wright, Seattle, Wash.
 U. S. junior—Larry Lee, Spokane, Wash.
 U. S. senior—John C. Espie, Jr., Indianapolis

Team

Walker Cup—United States 9, Great Britain 3, at Muirfield, Scotland
 National Collegiate A. A.—Houston
 U. S. public links—Dallas, Tex.

WOMEN

U. S. Open Championship

(At Churchill Valley C. C., Pittsburgh, Pa.)

Mickey Wright, San Diego, Calif.	72	75	71	287
Louise Suggs, Sea Island, Ga.	71	74	75	69—289
Marlene Bauer Hagge, Pittsburgh, Pa.	71	76	73	72—292
Ruth Jessen, Seattle, Wash.	75	74	72	71—292
Joyce Ziske, Waterford, Wis.	75	73	72	72—292
Patty Berg, West Chicago, Ill.	72	75	76	74—296
Betsy Rawls, Spartanburg, S. C.	76	73	72	76—297
Muriel MacKenzie, St. Petersburg, Fla.	77	75	75	71—298
*Anne Quast, Everett, Wash.	75	76	75	73—299
Joanne Prentice, Birmingham, Ala.	77	74	77	74—302
*Joanne Goodwin, Haverhill, Mass.	80	78	72	73—303
*Barbara McIntire, Tequesta, Fla.	76	77	74	76—303
Mary Lena Faulk, Thomasville, Ga.	76	77	76	76—305
Wanda Sanches, Baton Rouge, La.	75	73	77	80—305

* Amateur.

Other Champions

National P. G. A.—Betsy Rawls, Spartanburg, S. C.	288
Titleholders—Louise Suggs, Sea Island, Ga.	297
Western Open—Betsy Rawls, Spartanburg, S. C.	293
Triangle Round Robin—Betsy Rawls, Spartanburg, S. C.	62 pts.
Babe Zaharias Open—Betsy Rawls, Spartanburg, S. C.	*215
Mount Prospect Open—Betsy Rawls, Spartanburg, S. C.	291
Canadian Open—Marlene Stewart Streit, Toronto	

* 54 holes.

Amateur

U. S.—Barbara McIntire, Lake Park, Fla. (defeated Joanne Goodwin, in final, 4 and 3)
 British—Elizabeth Price, England (defeated Belle McCorkindale, Scotland, in final, on 37th hole)
 Eastern—Mrs. Edward McAuliffe, Haverhill, Mass.
 Western—JoAnne Gunderson, Seattle, Wash.
 Southern—Judy Eller, Old Hickory, Tenn.
 North and South—Mrs. Ann Casey Johnstone, Mason City, Iowa
 Trans-Mississippi—Mrs. Ann Casey Johnstone, Mason City, Iowa
 National intercollegiate—Judy Eller, Miami (Fla.)
 U. S. junior—Judy Rand, Aurora, Ohio
 U. S. senior—Mrs. Harrison Flipin, Ardmore, Pa.

Lee Retains Billiards Crown

Ed Lee of the New York A.C. retained his national amateur three-cushion billiards championship in 1959, defeating Stanhope Adams, of the Illinois A.C., at San Diego, Calif.

SQUASH RACQUETS

National Champions

Open—G. Diehl Mateer, Jr., Philadelphia
Amateur—Ben Heckscher, Devon, Pa.
Doubles—G. Diehl Mateer, Jr.—John Hentz, Philadelphia
Team—Yale
Professional—Al Chassard, Bethlehem, Pa.
Intercollegiate—Steve Vehslage, Princeton
Intercollegiate team—Princeton
Veterans—Edward Hahn, Detroit
Junior—James Zug, Haverford, Pa.

WOMEN

Singles—Mrs. W. Pepper Constable, Princeton, N. J.
Doubles—Mrs. Charles Wetzel—Mrs. Carter Simonin, Philadelphia
Senior singles—Mrs. John Carrott, Greenwich, Conn.
Senior doubles—Mrs. John Carrott, Greenwich, Conn.—Blanche Day, Philadelphia

Other

British Open—Azam Kham, Pakistan
Cowles invitation—Henri Salaun, Boston
Canadian open—Henri Salaun, Boston
Lapham Trophy—Canada
Wolfe-Noel Cup (women)—United States

SQUASH TENNIS

U. S. singles—J. Lenox Porter, New York
U. S. veterans—J. Lenox Porter, New York

RACQUETS

U. S. singles—Geoffrey Atkins, New York
U. S. doubles—Clarence C. Pell, Jr.—C. E. Pearson, New York
Tuxedo Gold Racquets—Geoffrey Atkins, New York
Canadian singles—C. E. Pearson, New York
Canadian doubles—T. J. Wagg—John Rolland, Montreal
North American singles—Albert (Jack) Johnson, New York
North American doubles—Not held.

COURT TENNIS

World—Northrup Knox, Buffalo, N. Y.
U. S. open—Albert (Jack) Johnson, New York
U. S. amateur singles—James Bostwick, New York
U. S. amateur doubles—Northrup and Seymour Knox, Buffalo, N. Y.
Tuxedo Gold Racquet—James Bostwick, New York
Intercollegiate (Whitney Cup)—Roger Tuckerman, Harvard
Intercollegiate team (Van Alen Cup)—Harvard

HANDBALL

U. S. H. A. Championships—Four Wall
(At Los Angeles)

Singles—John Sloan, Chicago Town Club
Doubles—John Sloan—Phil Collins, Chicago Town Club
Masters doubles—George Brotemarkle—Bill Feivou, Los Angeles

Combined A.A.U.—Y.M.C.A.

Championships—Four Wall
(At Cleveland)

Singles—John Sloan, Chicago Y.M.C.A.
Doubles—John Sloan—Phil Collins, Chicago Y.M.C.A.
Masters doubles—Oscar Panchaf—George Miller, Toledo Y.M.C.A.

A. A. U. Championships—One Wall
(At Brooklyn)

Singles—Oscar Obert, New York A. C.
Doubles—Oscar and Ruby Obert, New York A. C.

TABLE TENNIS

Source: Peter W. Roberts, National Chairman, History Committee, U. S. Table Tennis Association.

World Championships

(At Dortmund, Germany)

Singles—Jung Kuo-Tuan, Communist China
Doubles—Ichiro Ogimura—Teruo Murakami, Japan
Women's singles—Kimiyo Matsuzaki, Japan
Women's doubles—Taeko Nanba—Kazuko Yamaizumi, Japan
Mixed doubles—Ichiro Ogimura—Fujio Eguchi, Japan
Men's team (Swaything Cup)—Japan
Women's team (Corbillion Cup)—Japan

United States Open

Singles—Bob Gusikoff, New York
Doubles—Bob Gusikoff—Sol Schiff, New York
Women's singles—Susie Hoshi, Los Angeles
Women's doubles—Susie Hoshi, Los Angeles—Tiny Eller, Culver City, Calif.
Mixed doubles—Sol Schiff, New York—Tiny Eller, Culver City, Calif.
Junior singles—Norbert van de Walle, Chicago
Junior women's singles—Charlene Hanson, Burbank, Calif.
Senior singles—Sol Schiff, New York
Senior doubles—Allen Herskovich, San Francisco—Dr. Andreas Gal, New York
Esquire singles (men 50 years and over)—Si Ratner, Washington, D. C.

English Open

(At Wembley)

Singles—Ichiro Ogimura, Japan
Doubles—Ichiro Ogimura—Teruo Murakami, Japan
Women's singles—Fujio Eguchi, Japan
Women's doubles—Fujio Eguchi—Kimiyo Matsuzaki, Japan
Mixed doubles—Teruo Murakami—Kimiyo Matsuzaki, Japan

BADMINTON

Source: Hans Rogind, National Publicity Chairman, American Badminton Association.

United States Championships

(At Detroit)

Singles—Tan Joe Hok, Indonesia
Doubles—Teh Kew San—Lim Say Hup, Malaya
Women's singles—Judith Devlin, Baltimore
Women's doubles—Judith and Susan Devlin, Baltimore
Mixed doubles—Judith Devlin—Bunky Roche, Baltimore
Senior doubles—Ray Young, Buffalo, N. Y.—Bob Traquair, Tonawanda, N. Y.
Senior women's doubles—Mary Connor—Mildred Sirwaitis, Detroit

All-England

(At Wembley)

Singles—Tan Joe Hok, Indonesia
Doubles—Teh Kew San—Lim Say Hup, Malaya
Women's singles—Heather Ward, England
Women's doubles—June Timperley—Iris Rogers, England
Mixed doubles—Inger Hansen—Poul Nielsen, Denmark

DOG SHOWS

Best in Show

Westminster (New York)—Ch. Fontclair Festoon, miniature poodle, owned by Clarence Dillon, Dunwalke Kennels, Fair Hills, N. J.
Eastern (Boston)—Ch. Merrybrook's Fair Reward, wire-haired fox terrier, owned by Mrs. Franklin Koehler, Long Valley, N. J.
International (Chicago)—Ch. Chik T'Sun of Caversham, Pekingese, owned by Mr. and Mrs. C. C. Venable, Atlanta, Ga.

TENNIS

Davis Cup

Australia defeated United States, 3 to 2, in the challenge round at Forest Hills, N. Y.

Aug. 28—Neale Fraser, Australia, defeated Alex Olmedo, 8-6, 6-8, 6-4, 8-6.

Aug. 28—Barry MacKay, United States, defeated Rod Laver, 7-5, 6-4, 6-1.

Aug. 29—Neale Fraser-Roy Emerson, Australia, defeated Alex Olmedo-Earl Bucholz, 7-5, 7-5, 6-4.

Aug. 30—Alex Olmedo, United States, defeated Rod Laver, 9-7, 4-6, 10-8, 12-10.

*Aug. 30-31—Neale Fraser, Australia, defeated Barry MacKay, 8-6, 3-6, 6-2, 6-4.

* Match halted by darkness on Aug. 30 after two sets; completed following day.

Other Team Winners

Wightman Cup (women)—United States defeated England, 4 to 3, at Sewickley, Pa.

National Collegiate A. A.—Tulane, Notre Dame (tie)

National interscholastic—Coral Gables (Fla.) H. S.

United States Championships

(At Forest Hills, N. Y., and Brookline, Mass.)

Singles—Neale Fraser, Australia (defeated Alex Olmedo, Peru—Los Angeles, in final, 6-3, 5-7, 6-2, 6-4)

Doubles—Neale Fraser-Roy Emerson, Australia

Women's singles—Maria Bueno, Brazil (defeated Christine Truman, Great Britain, in final, 6-1, 6-4)

Women's doubles—Darlene Hard, Montebello, Calif.—Jeanne Arth, St. Paul, Minn.

Mixed doubles—Margaret duPont, Wilmington, Del.—Neale Fraser, Australia

England

(At Wimbledon)

Singles—Alex Olmedo, Peru—Los Angeles (defeated Rod Laver, Australia, in final, 6-4, 6-3, 6-4)

Doubles—Roy Emerson—Neale Fraser, Australia

Women's singles—Maria Bueno, Brazil (defeated Darlene Hard, Montebello, Calif., in final, 6-4, 6-3)

Women's doubles—Darlene Hard, Montebello, Calif.—Jeanne Arth, St. Paul, Minn.

Mixed doubles—Darlene Hard, Montebello, Calif.—Rod Laver, Australia

France

(At Paris)

Singles—Nicola Pietrangeli, Italy (defeated Ian Vermaak, South Africa, in final, 3-6, 6-3, 6-4, 6-1)

Doubles—Nicola Pietrangeli—Orlando Sirola, Italy

Women's singles—Christine Truman, Great Britain (defeated Suzy Kormoczy, Hungary, in final, 6-4, 7-5)

Women's doubles—Sandra Reynolds—Renee Schuurman, South Africa

Mixed doubles—Yola Ramirez, Mexico—Billy Knight, Great Britain

Australia

(At Sydney)

Singles—Alex Olmedo, Peru—Los Angeles (defeated Neale Fraser, Australia, in final, 6-1, 6-2, 3-6, 6-3)

Doubles—Rod Lever—Bob Mark, Australia

Women's singles—Mary Reitano, Australia (defeated Renee Schuurman, South Africa, in final, 6-2, 6-3)

Women's doubles—Sandra Reynolds—Renee Schuurman, South Africa

Mixed doubles—Sandra Reynolds, South Africa—Bob Mark, Australia

Other United States Champions

National Collegiate singles—Whitney Reed, San Jose State
National Collegiate doubles—Ron Holmberg—Crawford Henry, Tulane

Junior singles—Dennis Ralston, Bakersfield, Calif.

Junior doubles—Martin Riessen, Hinsdale, Ill.—Charles McKinley, St. Ann, Mo.

Boys singles—James Beste, Baton Rouge, La.

Boys doubles—Charles Pasarell Jr.—Jorge de Jesus, Puerto Rico

Interscholastic singles—Bill Lenoir, Tucson (Ariz.) H. S.

Interscholastic doubles—John Karabasz—Frank Froehling, Coral Gables, Fla.

College girls—Donna Floyd, William and Mary

Girls singles (18 and under)—Karen Hantze, San Diego, Calif.

Girls doubles (18 and under)—Karen Hantze—Kathy Chabot, San Diego, Calif.

Girls singles (15 and under)—Vicki Palmer, Phoenix, Ariz.

Girls doubles (15 and under)—Vicki Palmer, Phoenix, Ariz.—Margaret Taylor, San Marino, Calif.

Senior singles—Hal Surface, Kansas City

Senior doubles—Harry Hoffmann, Philadelphia—W. E. Hester, Jr., San Marino, Calif.

Women's senior singles—Mrs. Merceine Parker, Mexico

Women's senior doubles—Mrs. Marjorie Buck, Manchester, Mass.—Mrs. Kay McKean, Hamilton, Mass.

Father-and-son—Frank and Frank 3d Froehling, Coral Gables, Fla.

CLAY COURT

Singles—Bernard Bartzen, Dallas, Tex.

Doubles—Bernard Bartzen, Dallas, Tex.—Grant Golden, Evanston, Ill.

Women's singles—Sally Moore, Bakersfield, Calif.

Women's doubles—Sandra Reynolds—Renee Schuurman, South Africa

Senior singles—Bitsy Grant, Atlanta, Ga.

Senior doubles—C. Alphonso Smith—Hugh Lynch, Washington, D. C.

Father-and-son—Frank and Frank 3d Froehling, Coral Gables, Fla.

HARD COURT

Singles—Ramanathan Krishnan, India

Doubles—Ramanathan Krishnan, India—Hugh Stewart, Los Angeles

Women's singles—Sandra Reynolds, South Africa

Women's doubles—Sandra Reynolds—Renee Schuurman, South Africa

Mixed doubles—Sandra Reynolds, South Africa—Whitney Reed, Alameda, Calif.

United States Indoor

Singles—Alex Olmedo, Peru—Los Angeles

Doubles—Alex Olmedo, Peru—Los Angeles—Barry MacKay, Dayton, Ohio

Women's singles—Lois Felix, Meriden, Conn.

Women's doubles—Kay Hubbell, Conway, N. H.—Lois Felix, Meriden, Conn.

Mixed doubles—Mildred T. Johnson, Ormond Beach, Fla.—Donald Manchester, Auburndale, Fla.

Senior singles—Reginald Weir, New York

Senior doubles—Gardnar Mulloy, Coral Gables, Fla.—Bud Robineau, Denver

SPEARFISHING

World Championships

Individual—Terry Lentz, Monterey Park, Calif. . . 106.44 lbs
Team—Spain . . . 179 pts

CHAMPIONS IN THIRD PAN-AMERICAN GAMES

(At Chicago)

TRACK AND FIELD

100 m.—Ray Norton, U. S.	10.3
200 m.—Ray Norton, U. S.	20.6
400 m.—George Kerr, West Indies	46.1
800 m.—Tom Murphy, U. S.	1:49.4
1,500 m.—Dyrol Burleson, U. S.	3:49.1
5,000 m.—Bill Dellinger, U. S.	14:28.4
10,000 m.—Osvaldo Suarez, Argentina	30:17.2
Marathon—John J. Kelley, U. S.	2:27:54.2
3,000-m. steeplechase—Phil Coleman, U. S.	8:56.4
110-m. high hurdles—Hayes Jones, U. S.	13.6
400-m. hurdles—Josh Culbreath, U. S.	51.2
400-m. relay—United States	40.4
1,600-m. relay—West Indies	3:05.3
High jump—Charles Dumas, U. S.	6 ft. 10½ in.
Broad jump—Irvin Roberson, U. S.	26 ft. 2 in.
Hop, step & jump—Adhemar da Silva, Brazil	52 ft. 2 in.
Pole vault—Don Bragg, U. S.	15 ft. 2½ in.
Shot put—Parry O'Brien, U. S.	62 ft. 5½ in.
Discus—Al Oerter, U. S.	190 ft. 8½ in.
Javelin—Buster Quist, U. S.	231 ft. 3½ in.
Hammer—Al Hall, U. S.	195 ft. 11 in.
Decathlon—Dave Edstrom, U. S.	7,254 pts.

WOMEN

60 m.—Isabelle Daniels, U. S.	7.3
100 m.—Lucinda Williams, U. S.	12.3
200 m.—Lucinda Williams, U. S.	24.2
80-m. hurdles—Bertha Diaz, Cuba	11.2
400-m. relay—United States	46.6
High jump—Ann Flynn, U. S.	5 ft. 3¼ in.
Broad jump—Anne Smith, U. S.	18 ft. 9¼ in.
Shot put—Earlene Brown, U. S.	48 ft. 2 in.
Discus—Earlene Brown, U. S.	161 ft. 9½ in.
Javelin—Marlene Ahrens, Chile	148 ft. 10½ in.

SWIMMING

100-m. free—Jeff Farrell, U. S.	56.2
400-m. free—George Breen, U. S.	4:31.4
1,500-m. free—Alan Somers, U. S.	17:53.2
100-m. back—Frank McKinney, U. S.	1:03.6
200-m. breast—Bill Mullikan, U. S.	2:43.1
200-m. butterfly—Dave Gillanders, U. S.	2:18.0
800-m. freestyle relay—United States	8:22.7
400-m. medley relay—United States	4:14.9
3-m. springboard dive—Gary Tobian, U. S.	161.44 pts.
Platform dive—Alvaro Gaxiola, U. S.	168.77 pts.

WOMEN

100-m. free—Chris von Saltza, U. S.	1:03.8
200-m. free—Chris von Saltza, U. S.	2:18.5
400-m. free—Chris von Saltza, U. S.	4:55.9
100-m. back—Carin Cone, U. S.	1:12.2
200-m. breast—Ann Warner, U. S.	2:56.8
100-m. butterfly—Becky Collins, U. S.	1:09.5
400-m. freestyle relay—United States	4:17.5
400-m. medley relay—United States	4:44.6
3-m. springboard dive—Paula Jean Myers Pope, U. S.	139.23 pts.
Platform dive—Paula Jean Myers Pope, U. S.	93.17 pts.

BOXING

112-lb.—Miguel Botta, Argentina	
119-lb.—Waldo Claudiano, Brazil	
125-lb.—Carlos Aro, Argentina	
132-lb.—Abel Laudonio, Argentina	
140-lb.—Vincent Shomo, U. S.	
147-lb.—Alfredo Cornejo, Chile	
156-lb.—Wilbert McClure, U. S.	

165-lb.—Abroa de Souza, Brazil	
178-lb.—Amos Johnson, U. S.	
Heavyweight—Allen Hudson, U. S.	

CYCLING

1,000-m. sprint—Juan Canto, Argentina	
1,000-m. time trial—Anezio Argenta, Brazil	1:12.3
Road race—Ricardo Senn, Argentina	4:32:52.0
Road race, team—Argentina	20 pts.

EQUESTRIAN

Individual	Team
Dressage—Trish Galvin, U. S.	Chile
Jumping—	U. S.
3-day event—Michael Page, U. S.	Canada

FENCING

Individual	Team
Foil—Harold Goldsmith, U. S.	U. S.
Epee—Roland Wommack, U. S.	U. S.
Saber—Allan Kwartler, U. S.	U. S.
Women—Maria Roldan, Mexico	

GYMNASTICS

	pts.
All-around—John Beckner, U. S.	114.3
All-around, team—United States	564.70
Long horse—John Beckner, U. S.	19.05
Parallel bars—John Beckner, U. S.	19.20
Calisthenics—Abe Grossfeld, U. S.	19.30
Horizontal bar—Abe Grossfeld, U. S.	19.425
Still Rings—Abe Grossfeld, U. S., Jamile Ashmore, U. S. (tie)	19.00
Side horse—Gregor Weiss, U. S.	18.80
Tumbling—Harold Holmes, U. S.	9.15
Indian clubs—Francisco Alvarez, Mexico	9.60
Trampoline—Ron Munn, U. S.	9.55
Rope climb—Garvin Smith, U. S.	3 sec.

WOMEN

All-around—Ernestine Russell, Canada	38.467
All-around, team—United States	179.933
Side horse—Ernestine Russell, Canada	19.367
Balance beam—Ernestine Russell, Canada	19.533
Uneven parallel bars—Ernestine Russell, Canada	18.533
Calisthenics—Theresa Monterfusco, U. S.	19.10

MODERN PENTATHLON

Individual—Wenceslau Malta, Brazil	4,558 pts.
Team—United States	13,175 pts.

ROWING

(2,000 meters)

Eights—U. S. (Syracuse University)	6:24.4
Fours—U. S. (Lake Washington R. C., Seattle)	6:54.0
Fours with coxswain—U. S. (Lake Washington R. C., Seattle)	7:04.5
Pairs—U. S. (Robert Rogers, Ted Frost)	7:36.4
Pairs with coxswain—Uruguay (Gustavo Perez, Luis Aguiar, Raul Torrieri)	7:51.1
Doubles—U. S. (Jack Kelly, Jr., Bill Knecht)	7:15.2
Singles—Harry Parker, U. S.	7:46.9

SHOOTING

English match—Arthur Cook, U. S.	582
English match, team—United States	2,317
Skeet—Gilberto Navarro, Chile	197
Skeet, team—United States	779
Free pistol—Nelson Lincoln, U. S.	547
Free pistol, team—United States	2,129

Pan-American Games (Cont.)

Center-fire pistol—Aubrey Smith, U. S.	569
Center-fire pistol, team—United States	2,266
Smallbore pistol, rapid fire—David Cartes, U. S.	584
Smallbore pistol, rapid fire, team—United States	2,309

SMALLBORE RIFLE

Overall—Daniel Puckel, U. S.	1,107
Overall, team—United States	4,436
Prone—Gerald Ouelette, Canada	392
Prone, team—Canada	1,542
Kneeling—James Carter, U. S.	382
Kneeling, team—United States	1,508
Standing—James Carter, U. S.	357
Standing, team—United States	1,393

FREE RIFLE

Overall—Daniel Puckel, U. S.	1,147
Overall, team—United States	4,491
Prone—Daniel Puckel, U. S.	394
Kneeling—Daniel Puckel, U. S.	388
Standing—Daniel Puckel, U. S.	365

FREE RIFLE, RAPID FIRE

Overall—Daniel Puckel, U. S.	1,184
Overall, team—United States	2,239
Prone—Tommy Pool, U. S.	394
Kneeling—Daniel Puckel, U. S.	387

TENNIS

Singles—Luis Ayala, Chile	
Doubles—Gustavo and Antonio Palafox, Mexico	
Women's singles—Althea Gibson, U. S.	
Women's doubles—Yola Ramirez-Rosa Maria Reyes, Mexico	
Mixed doubles—Yola Ramirez-Gustavo Ramirez, Mexico	

WEIGHTLIFTING

132-lb.—Chuck Vinci, U. S.	717
132-lb.—Isaac Berger, U. S.	782½
148-lb.—Juan Torres, Cuba	766½
165-lb.—Tommy Kono, U. S.	898½
181-lb.—Jim George, U. S.	887½
198-lb.—Clyde Ernich, U. S.	953
Heavyweight—Dave Ashman, U. S.	1,047

WRESTLING

114.5-lb.—Dick Wilson, U. S.	
125.5-lb.—Dave Auble, U. S.	
136.5-lb.—Lou Giani, U. S.	
147.5-lb.—Jim Burke, U. S.	
160.5-lb.—Doug Blubaugh, U. S.	
174.5-lb.—Jim Ferguson, U. S.	
191-lb.—Frank Rosenmayr, U. S.	
Heavyweight—Dale Lewis, U. S.	

YACHTING

Dragon—Jorge Salas, Argentina	
Finn monotype—Kenneth Albury, Bahamas	
5.5-meter—George O'Day, U. S.	
Flying Dutchman—Harry Sindle, U. S.	
Lightning—E. Schmidt, Brazil	
Snipe—Antonio Moraes, Brazil	
Star—Durwood Knowles, Bahamas	

OTHER TEAM SPORTS

Baseball—Venezuela	
Basketball—United States	
Basketball, women—United States	
Soccer—Argentina	
Volleyball—United States	
Volleyball, women—Brazil	
Water Polo—United States	

ARCHERY**World Championships**

(At Stockholm, Sweden)

Men—James Caspers, Racine, Wis.	2,247
Women—Ann Corby, Bloomfield, N. J.	2,023
Men's team—U. S. (James Caspers, Robert Kadlec, James Neeley)	6,634
Women's team—U. S. (Ann Corby, Lucille Shine, Carole Meinhardt)	5,847

National Target Championships

(At Lancaster, Pa.)

Men—Wilbert Vetrovsky, Cleveland	3,473
Women—Carole Meinhardt, Pittsburgh, Pa.	3,732
Men's team—Minneapolis Archers	2,961
Women's team—Philadelphia Archers	2,800

National Field Archery

(At Bend, Ore.)

Instinctive—Carl Heinrich, Richmond, Mich.	2,799
Freestyle—Robert Kadlec, Rochester, Minn.	2,970
Heavy tackle—Jim Palmer, Dansville, N. Y.	2,663

WOMEN

Instinctive—Faye Sconyers, Modesto, Calif.	2,182
Freestyle—Cloe Roberson, Samaria, Mich.	2,621
Heavy tackle—Anna Van Dolsen, Vallejo, Calif.	1,758

SYNCHRONIZED SWIMMING**Women's National A. A. U. Championships****INDOOR**

(At Long Beach, Calif.)

Solo—Sandy Giltner, Lansing (Mich.) Sea Sprites	
Duet—Susan Laurence—Jackie Vargas, Athens A. C., Oakland, Calif.	
Team—Athens A. C., Oakland, Calif. (Jackie Vargas, Susan Laurence, Janet Anthony, Joanne Brobst, Sharon Gray)	

OUTDOOR

(At Detroit)

Solo—Betty Vickers, University A. C., Hollywood, Calif.	
Stunt—Betty Vickers, University A. C., Hollywood, Calif.	
Duet—Susan Laurence—Jackie Vargas, Athens A. C., Oakland, Calif.	
Team—Athens A. C., Oakland, Calif. (Janet Anthony, Jackie Vargas, Susan Laurence, Joanne Brobst, Sharon Gray)	

WATER SKIING**World Championships**

(At Milan, Italy)

Jumping—Buster McCalla, Cypress Gardens, Fla.	
Slalom—Charles Stearns, So. Bellflower, Calif.	
Combined—Charles Stearns, So. Bellflower, Calif.	
Figure—Philippe Logut, France	

WOMEN

Jumping—Nancie Rideout, Cypress Gardens, Fla.	
Slalom—Vicki Van Hook, Long Beach, Calif.	
Combined—Vicki Van Hook, Long Beach, Calif.	
Figure—Piera Castelvetri, Italy	

United States Championships

(At Laconia, N. H.)

Men—Mike Osborn, Cypress Gardens, Fla.	
Women—Nancie Rideout, Cypress Gardens, Fla.	

WATER POLO**National A. A. U. Champions**

Indoor—Illinois A. C.	
Outdoor—Olympic Club, San Francisco	

ROWING

Source: C. Leverich Brett, Editor, National Assn. of Amateur Oarsmen Yearbook and NAAO Rowing News

Intercollegiate Rowing Association

(At Syracuse, N. Y.)

VARSITY (3 miles)—1, Wisconsin (18:01.7); 2, Syracuse (18:09.1); 3, Navy (18:10.2); 4, California (18:21.3); 5, Washington (18:30.3); 6, Cornell (18:30.5); 7, Dartmouth (18:48.7); 8, Pennsylvania (18:48.8); 9, Princeton (18:53.4); 10, M.I.T. (19:25.3); 11, Columbia (19:28.8).	
Junior varsity (3 mi.)—California.....	17:53.5
Freshman (2 mi.)—Cornell.....	11:47.5
Team (Ten Eyck Trophy)—Washington.....	14 pts.

Other Intercollegiate Regattas

Adams Cup (1 3/4 miles)—Harvard.....	9:31.6
Blackwell Cup (1 5/16 miles)—Yale.....	6:38.8
Carnegie Cup (2 miles)—Yale.....	10:24.0
Childs Cup (2 miles)—Pennsylvania.....	10:36.0
Compton Cup (1 3/4 miles)—Harvard.....	8:45.0
Dad Vail Trophy (1 5/16 miles)—Brown.....	7:13.0
Eastern Association (2,000 meters)—Harvard.....	6:03.1
Goes Trophy (2 miles)—Syracuse.....	10:10.4
Harvard—Yale (4 miles)—Harvard.....	19:52.0
Packard Cup (2 miles)—Syracuse.....	10:52.0
Oxford—Cambridge (4 1/4 miles)—Oxford.....	18:52.0
Pennsylvania—Cornell (2 miles)—Pennsylvania.....	10:57.6
Washington—California (2 3/4 miles)—Washington.....	15:17.0

United States Championships

(At Detroit—2,000 meters except dashes)

1/4-mi. dash—Paul Yager, Potomac B. C., Washington, D. C.....	1:24.0
Singles—Harry Parker, Vesper B. C., Philadelphia.....	7:52.5
Association singles—Harry Parker, Vesper B. C., Philadelphia.....	7:12.8
Doubles—Vesper B. C., Philadelphia (Jack Kelly, Jr., Bill Knecht).....	7:25.5
Pairs—Lake Washington R. C., Seattle (Robert Rogers, Ted Frost).....	7:27.8
Pairs with coxswain—Detroit B. C. (Alan Pierrot, Jim McIntosh, Bob Kroll).....	7:27.2
Quads—Detroit B. C.....	6:20.4
Fours—Lake Washington R. C., Seattle.....	6:18.0
Fours with coxswain—Lake Washington R. C., Seattle.....	6:24.0
Eights—Lake Washington R. C., Seattle.....	5:59.2
Intermediate eights—St. Catharine's R. C., Canada.....	6:03.0
150-lb. 14-mi. dash—Bob Houston, New York A. C.....	1:27.5
150-lb. singles—Bob Houston, New York A. C.....	8:43.8
150-lb. doubles—Detroit B. C. (E. Walker, J. Callanan).....	
150-lb. quads—Detroit B. C.....	6:25.0
150-lb. fours—Detroit B. C.....	6:27.2
150-lb. eights—Detroit B. C.....	6:26.0
Team (Barnes Trophy)—Detroit B. C.....	233 1/2 pts.

British Royal Henley

(At Henley-on-Thames, England—1 5/16 miles)

Grand Challenge Cup (eights)—Harvard.....	6:57
Thames Challenge Cup (lightweight eights)—Harvard.....	7:13
Diamond sculls (singles)—Stuart MacKenzie, Australia.....	8:39
Doubles—Stuart MacKenzie—Chris Davidge, England.....	7:55
Silver Goblets (pairs)—Oxford (R. B. Norton, H. H. Scurfield).....	8:20
Stewards Cup (fours)—Oxford.....	7:39

LAWN BOWLING

National Champions

Singles—Willis J. Tewksbury, Clearwater, Fla.	
Doubles—Robert Smart—James Candelet, Pawtucket, R. I.	

RIFLE AND PISTOL SHOOTING

Source: Paul B. Cardinal, National Rifle Association.

National Championships

(At Camp Perry, Ohio)

Pistol—M/Sgt. Huelet L. Benner, U. S. Army.....	2,615
Smallbore rifle—Cpl. Walter R. Kamila, U. S. Marine Corps.....	6,383
High power rifle (NRA)—Ammon E. Bell, Hummels-town, Pa.....	495
M-1 service rifle—1/Lt. Thomas W. Atwood, U. S. Army.....	497

WOMEN

Pistol—Irma Tesch, Lawton, Okla.....	2,478
Smallbore rifle—Lenore M. Jensen, Allen Park, Mich.....	6,373
High power rifle (NRA)—Miralotte S. Ickes, Berkeley, Calif.....	481
M-1 service rifle—Laura J. Boyt, Renton, Wash.....	478

National Trophy Matches

Pistol—Sgt. James H. McNally, U. S. Army.....	293
Team pistol—U. S. Marine Blue.....	1,127
Rifle—Sgt. Charles D. Davis, Columbus, Ga.....	249
Team rifle—U. S. Army Gray.....	1,472

Indoor

Smallbore rifle—Lt. Milton Friend, U. S. Army.....	793
Women's smallbore rifle—Laura Boyt, Renton, Wash.....	786
Pistol—Sfc. William B. Blankenship, U. S. Army.....	881

TRAPSHOOTING

Grand American Tournament

(At Vandalia, Ohio)

GRAND AMERICAN HANDICAP

Men—Clyde Bailey, Oquawka, Ill.....	99
Women—Susan Hardy, Devon, Pa.....	97
Junior—Philip Ross, Fontana, Calif.....	98
Sub-Junior—Edward Mencimer, Ogden, Utah.....	97
Professional—R. L. Andrews, Jackson, Miss.....	98

SKETE SHOOTING

World Championships

(At Virginia Beach, Va.)

All-around—Barney Hartman, Canada.....	545
All gauge—Robert Shuley, Roselle, Ill.....	250
20 gauge—Kenneth Sedlecky, Baldwin, Mich.....	100
Small gauge—Glenn Brown, Bloomsburg, Pa.....	100
Sub-small gauge—Alex H. Kerr, Beverly Hills, Calif.....	99

HORSESHOE PITCHING

World Championships

(At Murray, Utah)

Men—Ted Allen, Boulder, Colo.	
Women—Vicki Chapelle, Portland, Ore.	
Junior—Donnie Roberts, Lucasville, Ohio	

National A. A. U. Championship

(At Elgin, Ill.)

Men—Glen Riffle, Dayton, Ohio	
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MODERN PENTATHLON

(At Hershey, Pa.)

World Championships

Individual—Igor Novikov, U.S.S.R.....	Pts. 4,847
Team—U.S.S.R.....	13,802

BOXING

World Championship Fights in 1959

Date	Title at stake	Defender	Challenger	Winner	Round(s)	Where held
Feb. 11	Lightweight	Joe Brown	Johnny Busso	Brown	15	Houston
Mar. 18	Featherweight	Hogan (Kid) Bassey	Davey Moore	Moore	KO 13	Los Angeles
Apr. 24	Welterweight	Jon Jordan	Virgil Akins	Jordan	15	St. Louis
May 1	Heavyweight	Floyd Patterson	Brian London	Patterson	KO 11	Indianapolis
June 3	Lightweight	Joe Brown	Paolo Rosi	Brown	KO 9	Washington
June 26	Heavyweight	Floyd Patterson	Ingemar Johansson	Johansson	KO 3	New York
July 8	Bantamweight	Alphonse Halimi	Jose Becerra	Becerra	KO 8	Los Angeles
July 10	Welterweight	Don Jordan	Denny Moyer	Jordan	15	Portland, Ore.
Aug. 10	Flyweight	Pascual Perez	Kenji Yonekura	Perez	15	Tokyo
Aug. 12	Light Heavyweight	Archie Moore	Yvon Durelle	Moore	KO 3	Montreal
Aug. 19	Featherweight	Davey Moore	Hogan (Kid) Bassey	Moore	KO 11	Los Angeles
Aug. 28	*Middleweight	*Gene Fullmer	*Carmen Basilio	Fullmer	KO 14	San Francisco

* Fought for vacant National Boxing Association middleweight title, after N.B.A. withdrew recognition from Ray Robinson as champion.

AMATEUR BOXING

National A. A. U. Championships (At Toledo, Ohio)

112-lb.—Gil Yanex, Toledo, Ohio
 119-lb.—Fred Griffin, Toledo, Ohio
 125-lb.—Roy Houpe, Columbus, Ohio
 132-lb.—Quincy Daniels, Seattle, Wash.
 139-lb.—Brian Shea, Chicago
 147-lb.—Vernon Vinson, Cleveland
 156-lb.—Wilbert McClure, Toledo, Ohio
 165-lb.—Jimmy McQueen, Elyria, Ohio
 178-lb.—Cassius Clay, Louisville, Ky.
 Heavyweight—James Blythe, Hartford, Conn.
 Team—Ohio Association (27 pts.)

National Collegiate (At Reno, Nev.)

119-lb.—Ron Nichols, San Jose State
 125-lb.—Bobby Cornwell, Washington State
 132-lb.—Nick Akana, San Jose State
 139-lb.—Joe Bliss, Nevada
 147-lb.—Buddy Rausch, Idaho State
 156-lb.—Terry Smith, Sacramento State
 165-lb.—Charles Mohr, Wisconsin
 178-lb.—John Horne, Michigan State
 Heavyweight—Hal Espy, Idaho State
 Team—San Jose State (24 pts.)

WEIGHTLIFTING

National A. A. U. Championships (At York, Pa.)

	Press	Snatch	C & J	Total
123-lb.—Chuck Vinci, Cleveland.....	235	205	260	700
132-lb.—Isaac Berger, York, Pa.....	240	220	280	740
148-lb.—Paul Goldberg, Livingston, N. J.	245	240	295	780
165-lb.—Tommy Kono, Honolulu.....	290	265	350	905
181-lb.—Jim George, Akron, Ohio.....	280	275	345	900
198-lb.—Clyde Ernich, York, Pa.....	290	285	370	945
Heavyweight—Dave Ashman, York, Pa..	310	315	415	1040
Team—York (Pa.) Barbell Club				

Ohio State, Pitt Tie for Honors

Ohio State and Pittsburgh tied for team honors in the 1959 national intercollegiate weightlifting championships at Pittsburgh. Each had 24 points. Maryland was third with 18. Ken Smythe of Pittsburgh won the heavyweight title with a total lift of 880 pounds.

WRESTLING

National A. A. U. Championships (At Stillwater, Okla.)

FREE STYLE

114.5-lb.—Dick Wilson, Toledo University
 125.5-lb.—Terry McCann, Tulsa (Okla.) Y.M.C.A.
 136.5-lb.—Yoshitaka Nishiwaki, Japan
 147.5-lb.—Newt Copple, Lincoln, Neb.
 160.5-lb.—Fritz Fivian, Oregon State
 174-lb.—Jim Ferguson, Lansing (Mich.) R.C.
 191-lb.—Frank Rosenmayr, San Francisco Olympic Club
 Heavyweight—Bill Kerslake, Cleveland
 Team—Cowboy A.C. (Oklahoma State), 31 pts.

GRECO-ROMAN

114.5-lb.—Dick Wilson, Toledo University
 125.5-lb.—Masaaki Hatta, Cowboy A.C.
 136.5-lb.—Eisuke Kitamara, Kansai University
 147.5-lb.—Ben Northrup, San Francisco Olympic Club
 160.5-lb.—Fred Boger, Irving Park Y.M.C.A., Chicago
 174-lb.—Julius Beno, San Francisco Olympic Club
 191-lb.—Adnan Kaisy, Cowboy A.C.
 Heavyweight—Bill Kerslake, Cleveland
 Team—Cowboy A.C. (Oklahoma State), 21 pts.

National Collegiate (At Iowa City)

115-lb.—Andy Fitch, Yale
 123-lb.—Dave Auble, Cornell
 130-lb.—Stan Abel, Oklahoma
 137-lb.—Larry Hayes, Iowa State
 147-lb.—Ron Gray, Iowa State
 157-lb.—Dick Beattie, Oklahoma State
 167-lb.—Ed Hamer, Lehigh
 177-lb.—Bill Wright, Minnesota
 191-lb.—Gordon Trapp, Iowa
 Heavyweight—Ted Ellis, Oklahoma State
 Team—Oklahoma State

JUDO

National A. A. U. Championships (At San Jose, Calif.)

130-lb.—Sumi Nosaki, Gardena, Calif.
 150-lb.—Mas Yoshioka, Los Angeles
 180-lb.—Vincent Tamura, Chicago
 Heavyweight—Lenwood Williams, Air Force
 Grand champion—Lenwood Williams, Air Force
 Team—Southern California (19 pts.)

YACHTING

Ocean and Distance Racing

- Miami to Nassau (184 miles)—Rhubarb, Benjamin B. duPont, Pine Orchard, Conn.
 St. Petersburg to Havana (284 miles)—Callooh, Jack M. Brown, New York
 Southern Ocean Racing Conference—Callooh, Jack M. Brown, New York
 Storm Trysail (Larchmont, N. Y., around Block Island to Stamford, Conn., 200 miles)—Memory, Robert N. Bavier, Jr., Noroton, Conn.
 Annapolis to Newport (468 miles)—Caper, H. Irving Pratt, Oyster Bay, N. Y.
 Marblehead to Halifax (360 miles)—Magic Carpet, Peter Richmond, Riverside, Conn.
 Transpacific (Los Angeles to Honolulu, 2,225 miles)—Nalu II, Peter Grant, Balboa, Calif.
 Chicago to Mackinac (333 miles)—Feather II, W. J. Peacock, Evanston, Ill.
 Port Huron to Mackinac (235 miles)—Apache, Wilfred Gmeiner, Detroit
 Cowes, Isle of Wight, to Fastnet Rock (605 miles)—Anitra, Sven Hansen, Sweden
 Buenos Aires to Rio de Janeiro (1,200 miles)—Tango, Raul G. Decker, Argentina

International

- King Olav Cup (6 meters, at Hango, Norway)—Llanoria, Magnus Konow, United States
 International Gold Cup (5.5 meters, at Sandhamn, Sweden)—Rush V, Lasse Thoren, Sweden

Other Champions

- North American sailing (Mallory Cup)—Harry C. Melges, Jr., Lake Geneva, Wis.
 Junior North American sailing (Sears Bowl)—John Welch, Canada
 Women's North American sailing (Adams Cup)—Allegra Mertz, Rye, N. Y.
 National intercollegiate dinghy (Morss Trophy)—Harvard
 National interscholastic—St. George's School, Newport, R. I.
 Atlantic, national—Hoyt O. Perry, Jr., Southport, Conn.
 Comet, international—John M. McCausland, Drexel Hill, Pa.
 Dinghy, national—Paul Henderson, Canada
 Dragon, North American—Walter E. Swindeman, Jr., Toledo
 Dragon, world—Walter Windeyer, Canada
 Finn monotype, national—Jack Knight, Philadelphia
 5.5 meter, national—Arthur Knapp, Jr., Larchmont, N. Y.
 5-0-5, national—Walter Bowden, San Antonio, Tex.
 Flying Dutchman, North American—Jack Duane, Delray Beach, Fla.
 Flying Scot, national—Gordon Douglas, Oakland, Md.
 Hampton O-D, national—George Conrad, Norfolk, Va.
 Highlander, international—Mark Bratton, Corpus Christi, Tex.
 Jolly Boat, national—Dave Smith, Marblehead, Mass.
 K-38, national—Peggy Slater, San Pedro, Calif.
 Lightning, international—Herman Nickels, Fenton, Mich.
 Luders 16, international—Cyril Cooper, Bermuda
 Moth, international—Bill Spencer, Hollywood, Fla.
 One-Ten, world—Al Frost, Jr., San Diego, Calif.
 Penguin, international—Jay Markham, Gardena, Calif.
 Raven, national—Al Bartolotti, Detroit
 6-meter, North American—James C. Crang, Canada
 Snipe, national—Dick Tillman, Atlanta, Ga.
 Standard sailfish, national—Fred French, Bantam Lake, Conn.
 Star, North American—Gary Comer, Chicago
 Star, world—Lowell North, San Diego, Calif.
 Super sailfish, national—Joe Schmidt, Middlebury, Conn.
 Thistle, national—Jerry Jenkins, Grosse Point, Mich.
 Two-Ten, national—Edwin A. Hills, Hingham, Mass.
 Woodpussy, national—Borden L. Hance, Fair Haven, N. J.
 Y-Flyer, international—Sandy Edmison, Canada
 Y-Flyer, national—Bill Berry, Manetta, Ga.

MOTORBOATING

Major Trophy Winners

- Harmsworth Trophy—Miss Supertest III, driven by Bob Hayward, Canada, owned by J. Gordon Thompson, Canada
 Gold Cup—Maverick, driven by Bill Stead, Reno, Nev., owned by W. T. Waggoner, Jr., Phoenix, Ariz.
 Silver Cup—Maverick, driven by Bill Stead, Reno, Nev., owned by W. T. Waggoner, Jr., Phoenix, Ariz.
 Diamond Cup—Maverick, driven by Bill Stead, Reno, Nev., owned by W. T. Waggoner, Jr., Phoenix, Ariz.
 International Trophy—Miss Detroit, driven and owned by Chuck Thompson, Detroit
 President's Cup—Wahoo, driven by Mira Slovak, Seattle, owned by Bill Boeing, Jr., Seattle

National Champions

OUTBOARD

- A racing runabout—Homer Kincaid, Carbon Cliff, Ill.
 A hydro—R. H. Haley, Blanchard, La.
 B racing runabout—Gene Hilton, Newton, N. C.
 B hydro—David L. Christner, Quincy, Ill.
 C racing runabout—Freddie Goehl, Quincy, Ill.
 C hydro—Jack Leek, Seattle
 D hydro—Freddie Goehl, Quincy, Ill.
 F racing runabout—Chuck Parsons, Lodi, Calif.
 F hydro—Hubert A. Enthorp, Seattle

INBOARD

- 91 hydro—Jimmy Cox, Jr., Lake Alfred, Fla.
 136 hydro—Sidney Johnson, Cambridge, Md.
 E racing runabout—Ralph Barker, Niagara Falls, N. Y.
 B racing runabout—Robert B. Rice, Arcadia, Calif.
 266 hydro—William Ritner, Gladwyn, Pa.
 135 hydro—R. Frank Neely, El Monte, Calif.
 48 hydro—F. C. Moor, Miami, Fla.
 280 hydro—Alton C. Pierson, Queenstown, Md.
 Jersey speed skiff—James Camp, Newark, N. J.
 44 runabout—R. McConnell, Latairie, La.

STOCK OUTBOARD

- ASH—Edwin Wulf, Amityville, N. Y.
 BSH—Robert Hering, Sheboygan, Wis.
 CSH—Bob Brown, Miami, Fla.
 DSH—Richard O'Dea, Paterson, N. J.
 JU—Jack Holden, Seattle
 AU—Edwin Wulf, Amityville, N. Y.
 BU—Ronald L. Zuback, Morgan, N. J.
 CU—Dean Mahaffey, Roseburg, Ore.
 36-C—William Kennedy III, Halesite, N. Y.
 DU—John Schedel, Secaucus, N. J.

MOTORCYCLING

Source: Lin Kueher, American Motorcycle Association.

National Champions

- | | |
|---|------------|
| 5-mi. track—Carroll Resweber, Cedarburg, Wis.... | 4:24.93 |
| 8-mi. track—Sammy Tanner, Houston, Tex..... | 8:18.14 |
| 10-mi. track—Dick Klamfoth, Groveport, Ohio.... | 9:14.48 |
| 15-mi. track—Dick Klamfoth, Groveport, Ohio.... | 13:58.39 |
| 25-mi. track—Carroll Resweber, Cedarburg, Wis.... | 18:13.23 |
| 50-mi. track—Carroll Resweber, Cedarburg, Wis.... | 33:25.11 |
| 100-mi. road—Brad Andres, San Diego, Calif..... | 1:42:59.47 |
| 200-mi. road—Brad Andres, San Diego, Calif..... | 2:36:04.00 |
| 45 TT (7 mi.)—Dick Mann, El Sobrante, Calif..... | 7:23.30 |
| 80 TT (7 mi.)—Duane Buchanan, Pekin, Ill..... | 7:18.58 |

1964 Olympics in Tokyo

The 1964 Olympic Games have been awarded to Tokyo. Tentative dates for the competition is July 25 to Aug. 9.

HORSE RACING

The Triple Crown

(Jockeys in parentheses)

KENTUCKY DERBY, Churchill Downs, May 2, \$125,000 added, 3 year olds, 126 pounds, 1 1/4 miles—1, Tomy Lee (Shoemaker); 2, Sword Dancer (Boland); 3, First Landing (Arcaro); 4, Royal Orbit (Harmatz); 5, Silver Spoon (York); 6, Finnegan (Longden); 7, Dunce (Brooks); 8, Open View (Korte); 9, Atoll (Boulmetis); 10, Rico Tesio (M. Ycaza); 11, Festival King (Carstens); 12, John Bruce (Church); 13, Easy Spur (Hartack); 14, The Chosen One (Combest); 15, Our Dad (Anderson); 16, Die Hard (Sellers); 17, Troilus (Rogers).

Open View and Atoll, Elkeam Stable and L. Chester entry. Dunce, Festival King, The Chosen One, Die Hard and Troilus, mutual betting field.

Time—2:02 1/5. Winner, Tomy Lee, owned by Mr. and Mrs. Fred Turner, Jr. Winner's purse, \$119,650. Margin, nose.

PREAKNESS STAKES, Pimlico, May 16, \$150,000 added, 3 year olds, 126 pounds, 1 3/16 miles—1, Royal Orbit (Harmatz); 2, Sword Dancer (Shoemaker); 3, Dunce (Boulmetis); 4, Marauder (Lawless); 5, Festival King (W. M. Cook); 6, Our Dad (Shuk); 7, Rico Tesio (Rogers); 8, Manassa Mauler (Broussard); 9, First Landing (Arcaro); 10, Open View (Korte); 11, Sundown II (L. Adams).

Time—1:57. Winner, Royal Orbit, owned by Jacques Braunstein Estate. Winner's purse, \$136,200. Margin, 4 lengths.

BELMONT STAKES, Belmont Park, June 13, \$125,000 added, 3 year olds, 126 pounds, 1 1/2 miles—1, Sword Dancer (Shoemaker); 2, Bagdad (Ussery); 3, Royal Orbit (Harmatz); 4, Manassa Mauler (Broussard); 5, Scotland (Boulmetis); 6, Dunce (M. Ycaza); 7, North Pole II (McCreary); Lake Erie (Blum) and Black Hills (Arcaro), fell.

Time—2:28 2/5. Winner, Sword Dancer, owned by Brookmeade Stable. Winner's purse, \$93,525. Margin, 3/4 length.

Foreign Races

Epsom Derby (England)—Parthia (Carr), winner's purse, \$101,018

Grand National Steeplechase (England)—Oxo (Scudamore), winner's purse, \$38,208

Queen's Plate (Canada)—New Providence (Ussery), winner's purse, \$51,625

Other Major U. S. Stakes Winners

Race	Winner, jockey	Win value
American Derby—Dunce (L. C. Cook)		93,700
Arlington Classic—Dunce (L. C. Cook)		78,700
Arlington Futurity—T. V. Lark (Maese)		150,312
Arlington Hcp.—Round Table (Shoemaker)		75,750
Arlington Lassie—Monarchy (Brooks)		61,950
Brooklyn Hcp.—Babu (McCreary)		72,545
California Breeders—Linmold (Taniguchi)		55,860
California Stakes—Hillsdale (Barrow)		66,800
Champagne Stakes—Warfare (I. Valenzuela)		138,195
Coaching Club Oaks—Resaca (Ycaza)		58,512
Delaware Hcp.—Endine (P. J. Bailey)		98,312
Del Mar Futurity—Azure's Orphan (E. Burns)		50,720
Dwyer Hcp.—Waltz (Boulmetis)		52,515
Flamingo Stakes—Troilus (Rogers)		86,070
Florida Derby—Easy Spur (Hartack)		75,300
Futurity Stakes—Weatherwise (Arcaro)		88,470
Grey Lag Hcp.—Vertex (Boulmetis)		54,887
Gulfstream Park Hcp.—Vertex (Boulmetis)		80,700
Hawthorne Gold Cup—Day Court (H. Moreno)		71,300
Hileah Turf Hcp.—Tudor Era (P. Anderson)		62,797
Hollywood Derby—Bagdad (Shoemaker)		65,900
Hollywood Gold Cup—Hillsdale (Barrow)		100,000
Hollywood Juvenile—Noble Noor (D. Pierce)		117,700
Hopeful Stakes—Tompion (Shoemaker)		73,433

Race	Winner, jockey	Win value
John B. Campbell Mem'l.—Vertex (Boulmetis)		74,595
Massachusetts Hcp.—Air Pilot (Leonard)		53,800
Matron Stakes—Heavenly Body (Ycaza)		58,224
Metropolitan Hcp.—Sword Dancer (Shoemaker)		74,235
Monmouth Hcp.—Sword Dancer (Shoemaker)		72,787
Princess Pat Stakes—Heavenly Body (Ycaza)		65,450
San Juan Capistrano—Royal Living (Neves)		70,700
Santa Anita Derby—Silver Spoon (York)		95,300
Santa Anita Hcp.—Terrang (Boland)		97,900
Santa Anita Maturity—Hillsdale (Barrow)		91,150
Sapling Stakes—Sky Clipper (Harmatz)		82,617
Spinaway Stakes—Irish Jay (Arcaro)		51,235
Stars and Stripes Hcp.—Round Table (Shoemaker)		54,700
Suburban Hcp.—Bald Eagle (Ycaza)		71,635
Sunset Hcp.—Whodunit (York)		63,700
Travers Stakes—Sword Dancer (Ycaza)		51,962
United Nations Hcp.—Round Table (Shoemaker)		65,000
Washington Park Futurity—Venetian Way (M. Gonzalez)		122,562
Washington Park Hcp.—Round Table (Shoemaker)		72,650
Widener Hcp.—Bardstow (Brooks)		87,240
Withers Stakes—Intentionally (Ycaza)		58,072
Wood Mem'l.—Manassa Mauler (Broussard)		55,915
Woodward Stakes—Sword Dancer (Arcaro)		70,170
World's Playground Stakes—Vital Force (Hartack)		76,323

HARNESS RACING

Trotting

Winner, driver	Win value
Yonkers Futurity—John A. Hanover (S. Dancer)	\$31,018
Hambletonian—Diller Hanover (F. Ervin)	73,666
Kentucky Futurity—Diller Hanover (R. Baldwin)	29,595

Pacing

Cane Futurity—Adios Butler (C. Hodgins)	35,451
Messenger Stake—Adios Butler (C. Hodgins)	55,497
Little Brown Jug—Adios Butler (C. Hodgins)	28,335

AUTO RACING

Winners of Major Races

(Car names in parentheses)

Indianapolis 500—Rodger Ward, Indianapolis (Leader Card Special), 135.856 mph	
Le Mans (France) 24-hour endurance race (sports cars)—Carroll Shelby, Dallas, Tex.—Roy Salvadori, Great Britain (Aston Martin), 112 mph, 2,717 miles	
Sebring (Fla.) 12-hour Grand Prix of Endurance (sports cars)—Phil Hill, Santa Monica, Calif.—Olivier Gendebien, Belgium (Ferrari), 81.46 mph, 977.6 miles	
Mille Miglia (1,000 miles), Brescia, Italy—Mario Carlo Abate—Gianni Balzarini, Italy (Ferrari)	
Little Le Mans, Lime Rock, Conn., 8-hour endurance race (sports cars)—Roger Penske, Allentown, Pa.—Charles Callanan, Greenwich, Conn. (Fiat Abarth), 62.47 mph, 501 miles	
Southern 500-Mile Stock Car Race, Darlington, S. C.—Jim Reed, Peekskill, N. Y. (Chevrolet Impala), 111.836 mph	
500-Mile Stock Car Sweepstakes, Daytona Beach, Fla.—Lee Petty, Randleman, N. C. (Oldsmobile), 135.42 mph	
Watkins Glen (N. Y.) Grand Prix (103.4 miles)—Walter Hansgen, Westfield, N. J. (Lister-Jaguar), 87.5 miles.	
British Grand Prix, Aintree, England (225 miles)—Jack Brabham, Australia (Cooper Climax), 89.88 mph	
Grand Prix of Europe, Rheims, France (260 miles)—Tony Brooks, Great Britain (Ferrari), 128 mph	

BOWLING

American Bowling Congress Tournament

(At St. Louis)	Pins
Singles—Ed Lubanski, Detroit	764
Doubles—Gib Fischbach—Barney Vehige, St. Louis	1,372
All-events—Ed Lubanski, Detroit	2,116
Team—Pfeiffer Beer, Detroit	3,243

National Match Game Champions

Bowling Proprietors' Association of America

Singles—Billy Welu, St. Louis	311.48 pts.
Doubles—Don Carter—Tom Hennessey, St. Louis	31 pts.
Team—Budweiser Beer, St. Louis	12,576
Women's singles—Marion Ladewig, Grand Rapids, Mich.	149.33 pts.
Women's doubles—Marion Ladewig, Grand Rapids, Mich.—La Verne Carter, St. Louis	6,043
Women's team—Steelcase Majors, Grand Rapids, Mich.	10,905
Duckpin all-star—James Dietsch, Baltimore	172.21 pts.
Women's duckpin all-star—Maureen Walsh, West Hartford, Conn.	77.24 pts.
Team handicap—American Legion Post 88, Shenandoah, Iowa	9,126

Women's International Bowling Congress

(At Buffalo, N. Y.)

Singles—Mae Ploegman Bolt, Chicago	664
Doubles—Sylvia Wene—Adele Isphording, Philadelphia	1,263
All-events—Pat McBride, Grand Rapids, Mich.	1,927
Team—Bill Snethkamp—Chrysler, Detroit	3,030

DUCK PINS

National Duck Pin Bowling Congress

(At Baltimore)

Singles—Hilmar Spersneider, Baltimore	473
Doubles—Vernon Marsch—Frank Hugelmeyer, Baltimore	850
All-events—Bill Bursay, Washington, D. C.	1,301
Team—Chevy Chase Chevrolet, Washington, D. C.	2,081
Women's singles—Dorothy Cridlin, Richmond, Va.	432
Women's doubles—Ruth Freeman—Audrey Atkinson, Baltimore	774
Women's all-events—Frances Wilson, Washington, D. C.	1,190
Women's team—Carousel—Eastway, Baltimore	1,882
Mixed doubles—Lou Kaye—Ann Bafford, Baltimore	810

World Championships

Source: Roller Skating Rink Operators Association.

(At Christchurch, New Zealand)

Singles—Robert Wollard, Santa Ana, Calif.
Women's singles—Carolyn Sliger, Oklahoma City
Figures—Darrell Glenn, Long Beach, Calif.
Women's figures—Christie Benda, Springfield, Mo.
Pairs—Ken Trotter—Ruth Heeseman, Mineola, N. Y.
Dance—Charles Wahlig—Claire Farrell, Elmont, N. Y.
Speed—John Drewry, Manassquan, N. J.
Women's speed—Sally Richardson, Detroit

Rink Operators Championships

(At Boston)

Singles—James Mohler, North Sacramento, Calif.
Women's singles—Sylvia Hafke, Agawam, Mass.
Figures—Darrell Glenn, Long Beach, Calif.
Women's figures—Paulette Stewart, Redwood City, Calif.
Pairs—Robert Wollard—Carol Stout, Santa Ana, Calif.
Dance—Charles Wahlig—Claire Farrell, Elmont, N. Y.
Fours—Mineola, N. Y. (Edmund Kline, Lillian Manso, Kenneth Trotter, Ruth Heeseman)
Speed—Gerald Gohs, Detroit
Women's speed—Mary Merrell, Fullerton, Calif.
Relay—Wichita, Kan. (Patrick Carter, Jerry Decker, Richard

GYMNASTICS

National A. A. U. Championships

(At Amherst, Mass.)

All-around—John Beckner, Los Angeles Turners	106.65
Calisthenics—Jamilé Ashmore, U. S. Army	18.55
Longhorse—Donald Tonny, Pond's Palastrum, Urbana, Ill.	17.80
Side horse—John Beckner, Los Angeles Turners	18.40
Parallel bars—John Beckner, Los Angeles Turners, and Edward Scrobe, New York A. C. (tie)	18.25
Horizontal bar—Arthur Shurlock, U. of California	18.35
Still rings—Jamilé Ashmore, U. S. Army	18.60
Tumbling—Harold Holmes, Urbana, Ill.	9.40
Trampoline—Ron Munn, Amarillo, Tex.	9.45
Swinging rings—Thomas Darling, Pittsburgh, Pa.	9.00
Rope climb—Garvin Smith, Los Angeles	2.9 sec.
Team—Los Angeles Turners	44 pts.

WOMEN

(At Kent, Ohio)

All-around—Ernestine Russell, Michigan State	70.95
Calisthenics—Betty Maycock, Cleveland	18.20
Side horse vaulting—Ernestine Russell, Michigan State	18.20
Balance beam—Muriel Davis, Pond's Palastrum, Urbana, Ill.	17.90
Uneven parallel bars—Marta Nagy, U. of Colorado	17.90
Tumbling—Teresa Montefusco, Flint Acrolympian Club	9.00

National Collegiate

(At Berkeley, Calif.)

All-around—Armando Vega, Penn State	551.25
Free exercise—Don Tonny, Illinois	94.5
Rope climb—Don Littlewood, Penn State	3.5 sec.
Side horse—Art Shurlock, California	97.0
Horizontal bar—Stan Tarshis, Michigan State	96.5
Trampoline—Ed Cole, Michigan	92.0
Parallel bars—Armando Vega, Penn State	95.5
Flying rings—Jay Werner, Penn State	94.0
Still rings—Armando Vega, Penn State	94.0
Tumbling—Dave Dulaney, Penn State	85.5
Team—Penn State	152 pts.

ROLLER SKATING

Edwards, Charles Stover)

Women's relay—Wichita, Kan. (Lynda Stawitz, Delsie Storey, Barbara Solter, Jody Fehring)
Mixed relay—Detroit (Donna Waters, Sally Richardson, Donald Munoz, Gerald Gohs)

A. R. S. A. Championships

Source: U. S. Amateur Roller Skating Association.

(At Indianapolis)

Singles—David Julien, Livonia, Mich.
Women's singles—Dawn Brown, Trenton, N. J.
Women's pairs—Linda Beaton—Linda Kobane, Livonia, Mich.
Mixed pairs—David Julien—Linda Kobane, Livonia, Mich.
Dance—Marshall Rule—Gaile Gilmarin, Levittown, N. Y.
Fours—Elizabeth, N. J. (Ernest Schmid, Barbara Jablonski, Paul Zukowski, Diane Ludwig)
Speed—James Richardson, Alexandria, Va.
Women's speed—Geraldine Gehret, Reading, Pa.
Relay—Raymond Eze—Donald Rosko, Peru, Ind.

95,000 at Schoolboy Soccer

A schoolboy soccer match between England and Germany at Wembley Stadium, London, drew a record attendance of 95,000 on April 25, 1959.

MAJOR LEAGUE BASEBALL RECORDS FOR 1959

American League

Final Standing of the Clubs

	Chicago	Cleveland	New York	Detroit	Boston	Baltimore	Kansas City	Washington	Woon	Lost	Percentage	Games Behind
Chicago.....	—	15	13	13	14	11	12	16	94	60	.610	—
Cleveland.....	7	—	11	14	14	12	15	16	89	65	.578	5
New York.....	9	11	—	8	9	10	17	15	79	75	.513	15
Detroit.....	9	8	14	—	11	9	15	10	76	78	.494	18
Boston.....	8	8	13	11	—	14	11	10	75	79	.487	19
Baltimore.....	11	10	12	13	8	—	8	12	74	80	.481	20
Kansas City.....	10	7	5	7	11	14	—	12	66	88	.429	28
Washington.....	6	6	7	12	12	10	10	—	63	91	.409	31

National League

Final Standing of the Clubs

	Los Angeles	Milwaukee	San Francisco	Pittsburgh	Chicago	Cincinnati	St. Louis	Philadelphia	Woon	Lost	Percentage	Games Behind
*Los Angeles.....	—	14	14	11	11	9	12	17	88	68	.564	—
Milwaukee.....	10	—	12	15	12	11	13	13	86	70	.551	2
San Francisco.....	8	10	—	12	10	14	16	13	83	71	.539	4
Pittsburgh.....	11	7	10	—	10	13	14	13	78	76	.506	9
Chicago.....	11	10	12	12	—	9	10	10	74	80	.481	13
Cincinnati.....	13	11	8	9	13	—	11	9	74	80	.481	13
St. Louis.....	10	9	6	8	12	11	—	15	71	83	.461	16
Philadelphia.....	5	9	9	9	12	13	7	—	64	90	.416	23

* Defeated Milwaukee for title in playoffs.

THE LEADERS

Batting—Harvey Kuenn, Detroit.....	.353
Home runs—Rocky Colavito, Cleveland, and Harmon Killebrew, Washington.....	42
Runs batted in—Jackie Jensen, Boston.....	112
Runs—Eddie Yost, Detroit.....	115
Hits—Harvey Kuenn, Detroit.....	198
Doubles—Harvey Kuenn, Detroit.....	42
Triples—Bob Allison, Washington.....	9
Stolen bases—Luis Aparicio, Chicago.....	56

Batting—Henry Aaron, Milwaukee.....	.355
Home runs—Ed Mathews, Milwaukee.....	46
Runs batted in—Ernie Banks, Chicago.....	143
Runs—Vada Pinson, Cincinnati.....	131
Hits—Henry Aaron, Milwaukee.....	223
Doubles—Vada Pinson, Cincinnati.....	47
Triples—Wally Moon and Charles Neal, Los Angeles.....	11
Stolen bases—Willie Mays, San Francisco.....	27

PITCHING

Wins—Early Wynn, Chicago.....	22
Percentage—Bob Shaw, Chicago (18-6).....	.750
ERA—Hoyt Wilhelm, Baltimore.....	2.19
Strikeouts—Jim Bunning, Detroit.....	201
Complete games—Camilo Pascual, Washington.....	17

PLAYOFF SERIES DECIDES NATIONAL LEAGUE PENNANT

The 154-game National League season ended with the Los Angeles Dodgers and defending Milwaukee Braves in a tie for first place with 86 victories and 68 defeats each. In a best-of-three playoff series, Los Angeles defeated Milwaukee, 2-0, to win the league championship. The Dodgers won

PITCHING

Wins—Sam Jones, San Francisco; Lew Burdette and Warren Spahn, Milwaukee.....	21
Percentage—Elroy Face, Pittsburgh (18-1).....	.947
ERA—Stu Miller, San Francisco.....	2.84
Strikeouts—Don Drysdale, Los Angeles.....	242
Complete games—Warren Spahn, Milwaukee.....	21

the first game at Milwaukee on Sept. 28, by 3 to 2. A sixth inning home run by John Roseboro provided the deciding run. Carl Furillo's homer in the 12th inning won the second game, 6 to 5, at Los Angeles on Sept. 29.

First Game, at Milwaukee

	R	H	E
Los Angeles.....	1	0	1
Milwaukee.....	0	2	0

Batteries—McDevitt, Sherry (2) and Roseboro; Willey, McMahon (7) and Crandall. WP—Sherry. LP—Willey. Home run—Roseboro. Time—2:40. Attendance—18,297.

Second Game, at Los Angeles

	R	H	E
Milwaukee.....	2	1	0
Los Angeles.....	1	0	0

Batteries—Burdette, McMahon (9), Spahn (9), Jay (9), Rush (12) and Crandall; Drysdale, Podres (5), Churn (7), Koufax (9), Labine (9), Williams (10) and Roseboro, Pignatano. WP—Williams. LP—Rush. HR—Neal, Mathews. Time—4:06. Attendance—36,528.

TWO ALL-STAR GAMES PLAYED IN 1959

For the first time since the annual classic was inaugurated in 1933, baseball in 1959 had two major league All-Star games instead of one. The first was played in Pittsburgh on July 7 and was won by the

National League, 5 to 4. A 436-foot triple by Willie Mays of San Francisco drove in the winning run in the eighth inning. The second game, in Los Angeles on Aug. 3, went to the American League, 5 to 3.

First Game, at Pittsburgh

	R	H	E
American.....	0	0	1
National.....	1	0	0

Batteries—Wynn, Duren (4), Bunning (7), Ford (8), Daley (8) and Triandos, Lollar; Drysdale, Burdette (4), Face (7), Antonelli (8), Elston (9) and Crandall. WP—Antonelli. LP—Ford. HR—Mathews, Kaline. Time of game—2:33. Attendance—35,277. Receipts—\$194,303 (net). Managers, AL—Stengel, NL—Haney.

Second Game, at Los Angeles

	R	H	E
American.....	0	1	2
National.....	1	0	0

Batteries—Walker, Wynn (4), Wilhelm (6), McLish (7), O'Dell (9) and Berra, Lollar; Drysdale, Conley (4), Jones (6), Face (8) and Crandall, Smith. WP—Walker. LP—Drysdale. HR—Malzone, Berra, Robinson, Gilliam, Colavito. Time of game—2:42. Attendance—54,982. Receipts—262,336 (net). Managers, AL—Stengel, NL—Haney.

Batting Averages

(Unofficial—200 at bats or more)

American League

	g	ab	r	h	hr	rbi	avg
Francona, Cleveland.....	122	399	68	145	20	79	.363
Kuenn, Detroit.....	139	561	99	198	9	71	.353
Caline, Detroit.....	136	511	86	167	27	94	.327
Runnels, Boston.....	147	560	95	176	8	57	.314
Snyder, Kansas City.....	73	243	41	78	3	21	.313
Fox, Chicago.....	156	624	84	191	2	70	.305
Minoso, Cleveland.....	148	570	92	172	21	92	.302
Rickardson, New York.....	136	469	53	141	2	33	.301
Tuttle, Kansas City.....	126	463	74	139	7	43	.300
Woodling, Baltimore.....	140	440	63	132	14	77	.300
Skowron, New York.....	74	282	39	84	15	59	.298
Nieman, Baltimore.....	118	360	49	105	21	60	.292
Power, Cleveland.....	147	595	102	172	10	60	.289
Smith, Kansas City.....	108	292	36	84	5	31	.288
Mantle, New York.....	144	541	104	154	31	75	.285
Cerv, Kansas City.....	125	493	61	132	22	87	.285
Berra, New York.....	131	472	64	134	19	69	.284
White, Boston.....	119	377	34	107	1	42	.284
Robinson, Baltimore.....	88	313	29	89	4	24	.284
Lopez, K. C.-N. Y.....	147	540	82	153	22	93	.283
Pilarcik, Baltimore.....	130	273	38	77	3	16	.282
Malzone, Boston.....	154	604	90	169	19	92	.280
Lepcio, Bos.-Det.....	77	218	26	61	7	25	.280
Lemon, Washington.....	147	531	73	148	33	100	.279
Kubek, New York.....	132	512	67	135	6	51	.279
York, Detroit.....	142	522	115	145	21	60	.278
Stephens, Boston.....	92	270	34	75	3	39	.278
Jensen, Boston.....	148	535	101	148	28	112	.277
McAnany, Chicago.....	67	210	22	58	0	27	.276
Wertz, Boston.....	94	247	38	68	7	49	.275
Howard, New York.....	125	443	69	121	18	73	.273
Maris, Kansas City.....	121	433	69	118	16	72	.273
Landis, Chicago.....	148	514	78	140	5	69	.272
Siebern, New York.....	122	380	52	103	11	53	.271
Baker, Detroit.....	116	381	38	102	3	35	.268
Bocour, Washington.....	107	220	20	59	1	26	.268
Lollar, Chicago.....	140	504	63	134	22	84	.266
Williams, Kansas City.....	130	488	72	130	16	75	.266
Bolling, Detroit.....	127	460	56	122	13	55	.265
Boyd, Baltimore.....	128	415	42	110	3	41	.265
Phillips, Chicago.....	117	379	43	100	5	40	.264
Wilson, Detroit.....	67	228	28	60	4	35	.263
Gernert, Boston.....	124	284	41	77	11	40	.262
Allison, Washington.....	150	570	83	149	30	85	.261
Martin, Cleveland.....	73	241	37	63	9	24	.261
Aparicio, Chicago.....	162	612	98	157	6	52	.257
Colavito, Cleveland.....	154	588	91	151	42	111	.257
Williams, Boston.....	103	272	32	69	10	43	.254
Hadley, Kansas City.....	113	288	40	73	10	39	.253
Held, Cleveland.....	143	525	82	132	29	72	.261
Maxwell, Detroit.....	145	518	81	130	31	95	.251
McDougald, New York.....	127	434	44	109	4	42	.251
Throneberry, Wash.....	117	327	36	82	10	42	.251
Tasby, Baltimore.....	141	505	68	126	13	48	.250
Klaus, Baltimore.....	104	321	33	80	3	25	.249
Goodman, Chicago.....	104	270	21	67	1	28	.248
Green, Balt.-Wash.....	114	214	32	53	3	17	.248
Naragon, Cleve.-Wash.....	85	231	18	57	0	16	.247
Piersall, Cleveland.....	100	317	42	78	4	30	.246
Gelger, Boston.....	120	335	45	82	11	48	.245
DeMaestri, Kansas City.....	118	352	31	85	6	34	.244
Aspromonte, Washington.....	70	225	31	56	14	24	.244
Keough, Boston.....	96	251	40	61	7	27	.243
Killebrew, Washington.....	153	546	98	132	42	105	.242
Sievers, Washington.....	115	385	55	93	21	49	.242
Buddin, Washington.....	151	485	75	117	10	53	.241
Lumpe, N. Y.-K. C.....	126	448	49	108	3	30	.241
Nixon, Cleveland.....	82	258	21	62	1	29	.240
Baxes, Cleveland.....	77	247	35	69	15	34	.239
Strickland, Cleveland.....	132	442	55	105	3	48	.238
Bauer, New York.....	114	341	44	87	9	38	.238
Smith, Chicago.....	129	472	65	112	17	55	.237
Bertola, Washington.....	90	308	33	73	8	29	.237
House, Kansas City.....	98	347	32	82	1	29	.236
Samford, Washington.....	90	237	23	53	5	22	.224
Carrasquel, Baltimore.....	114	346	28	77	4	28	.223
Harris, Detroit.....	114	349	39	77	9	39	.221
Torgeson, Chicago.....	127	278	40	61	9	45	.220
Gardner, Baltimore.....	140	401	34	87	6	27	.220
Faloutsos, Baltimore.....	125	393	48	85	7	36	.218
Barberet, Detroit.....	100	338	38	83	13	37	.216
Pearson, Wash.-Balt.....	105	218	31	47	0	8	.216
Consolo, Bos.-Wash.....	89	216	28	46	0	10	.213
Osborne, Detroit.....	86	209	27	40	3	21	.191

	g	ab	r	h	hr	rbi	avg
Robinson, Cincinnati.....	146	540	106	168	36	125	.311
Boyer, St. Louis.....	149	563	86	174	28	94	.309
Snider, Los Angeles.....	126	370	69	114	23	87	.308
Mathews, Milwaukee.....	148	594	118	182	46	114	.306
Banks, Chicago.....	155	589	97	179	45	143	.304
Moon, Los Angeles.....	145	543	91	164	19	74	.302
White, St. Louis.....	139	617	76	156	12	72	.302
Burgess, Pittsburgh.....	114	377	41	112	11	59	.297
Clemente, Pittsburgh.....	105	432	60	125	4	49	.296
Stuart, Pittsburgh.....	118	398	64	118	27	79	.296
Hoak, Pittsburgh.....	155	564	60	166	8	65	.294
Bell, Cincinnati.....	148	580	59	170	19	115	.293
Adcock, Milwaukee.....	115	404	53	118	25	76	.292
Logan, Milwaukee.....	138	470	59	137	13	61	.291
Philly, Philadelphia.....	99	254	32	74	7	37	.291
Larker, Los Angeles.....	108	310	37	90	8	49	.290
Blasingame, St. Louis.....	149	615	91	178	1	24	.289
Bruton, Milwaukee.....	133	478	72	138	6	41	.289
Neal, Los Angeles.....	151	616	104	177	19	83	.287
Bouchee, Philadelphia.....	136	499	75	142	15	74	.285
Kasko, Cincinnati.....	118	329	39	93	2	32	.283
Gilliam, Los Angeles.....	145	553	91	156	3	34	.282
T. Taylor, Chicago.....	150	624	96	175	8	40	.280
Skinner, Pittsburgh.....	143	547	80	153	13	61	.280
Cimoli, St. Louis.....	143	519	61	145	8	72	.279
Covington, Milwaukee.....	103	373	38	104	7	45	.279
Hodges, Los Angeles.....	124	413	57	114	25	80	.276
Groat, Pittsburgh.....	147	593	74	163	5	51	.275
Alou, San Francisco.....	95	247	38	68	10	33	.275
Kirkland, San Francisco.....	126	463	64	126	22	68	.272
H. Smith, St. Louis.....	141	452	35	122	13	49	.270
Brandt, San Francisco.....	137	429	63	116	12	57	.270
Lynch, Cincinnati.....	117	379	60	102	17	59	.269
S. Taylor, Chicago.....	110	353	41	95	13	43	.269
Freese, Philadelphia.....	132	400	62	107	23	70	.268
Grammas, St. Louis.....	131	369	43	99	3	30	.268
Ashburn, Philadelphia.....	113	364	45	91	1	20	.266
Spencer, San Francisco.....	152	555	59	147	12	61	.265
E. Bailey, Cincinnati.....	121	378	43	100	10	40	.265
Dark, Chicago.....	136	477	60	126	6	45	.264
McMillan, Cincinnati.....	79	246	38	65	9	24	.264
Koppe, Philadelphia.....	126	422	67	110	7	28	.261
Wills, Los Angeles.....	83	242	27	63	0	7	.260
Thomson, Chicago.....	121	374	55	97	11	52	.269
Davenport, San Fran.....	123	469	65	121	6	38	.258
Bandt, Milwaukee.....	150	518	65	133	21	72	.257
James, Phil.-Cin.....	119	393	58	101	14	54	.257
Demeter, Los Angeles.....	139	371	55	95	18	70	.256
Walls, Chicago.....	118	355	43	91	8	33	.256
Musial, St. Louis.....	115	341	37	87	14	44	.255
Flood, St. Louis.....	120	208	25	53	7	26	.255
Virdon, Pittsburgh.....	144	519	67	132	8	41	.254
Post, Philadelphia.....	132	468	62	119	22	94	.254
Marshall, Chicago.....	107	294	39	74	11	40	.252
Beaud, San Francisco.....	104	315	35	79	9	25	.251
Landrith, San Francisco.....	109	283	30	71	3	29	.251
Rodgers, San Francisco.....	71	228	32	57	6	24	.250
Altman, Chicago.....	135	420	54	103	12	46	.245
Mazeroski, Pittsburgh.....	135	493	50	119	7	59	.241
H. Anderson, Phil.....	142	508	49	122	14	63	.240
Fairly, Los Angeles.....	118	244	27	58	4	23	.238
Long, Chicago.....	110	298	34	70	14	37	.236
Mejias, Pittsburgh.....	96	276	28	65	7	28	.236
Morlyn, Chicago.....	117	381	41	89	14	48	.234
Roseboro, Los Angeles.....	118	397	39	92	10	38	.232
Torre, Milwaukee.....	115	263	23	60	1	33	.228
Thomas, Cincinnati.....	108	374	41	84	12	47	.225
G. Anderson, Phil.....	152	477	42	104	0	34	.218
Mantilla, Milwaukee.....	103	251	26	54	3	19	.215
Zimmer, Los Angeles.....	96	249	21	41	2	28	.165

CLUB BATTING

American League

	ab	r	h	hr	rbi	sb	avg
Cleveland.....	5287	745	1390	167	683	33	.2629
Kansas City.....	5265	681	1383	117	636	33	.2627
New York.....	5379	687	1397	153	651	45	.260
Detroit.....	5212	713	1346	160	666	34	.258
Boston.....	5225	705	1337	167	659	77	.256
Chicago.....	5295	669	1326	99	670	112	.250
Baltimore.....	5207	651	1240	109	514	36	.238
Washington.....	5091	619	1220	163	580	50	.237

National League

National League								ab	r	h	hr	rbi	sb	avg	
	g	ab	r	h	hr	rbi	avg								
Aaron, Milwaukee.....	154	629	116	223	39	123	.355	Cincinnati.....	5288	764	1488	161	721	64	.274
Cunningham, St. Louis.....	144	458	65	158	7	60	.345	St. Louis.....	5317	641	1432	118	605	65	.263
Copeland, San Francisco.....	151	605	92	192	27	165	.317	Milwaukee.....	5388	724	1426	177	694	40	.269
Pinson, Cincinnati.....	154	648	131	205	20	84	.216	Pittsburgh.....	5369	651	1414	112	617	32	.263
Mays, San Francisco.....	151	676	125	180	34	104	.313	San Francisco.....	5282	705	1377	167	659	77	.261
Temple, Cincinnati.....	149	598	102	186	8	67	.311	Los Angeles.....	5263	673	1361	165	685	24	.261
Robinson, Cincinnati.....	146	540	106	168	36	125	.311	Chicago.....	5296	679	1361	163	635	38	.249
Boyer, St. Louis.....	149	563	86	174	28	94	.309	Philadelphia.....	5109	599	1237	113	659	38	.241
Snider, Los Angeles.....	126	370	69	114	23	87	.308								
Mathews, Milwaukee.....	148	594	118	182	46	114	.306								
Banks, Chicago.....	155	589	97	179	45	143	.304								
Moon, Los Angeles.....	145	468	80	127	22	72	.299								

Pitching Records

(Unofficial—10 or more decisions)

American League

	g	ip	h	bb	so	w	l	era
Staley, Chicago.....	67	116	112	26	56	8	5	2.17
Wilhelm, Baltimore.....	32	226	178	77	139	15	11	2.19
Shantz, New York.....	37	95	64	32	66	7	3	2.46
Shaw, Chicago.....	47	231	217	64	89	18	6	2.55
Perry, Cleveland.....	44	153	122	55	79	12	10	2.65
Pasqual, Washington.....	32	239	202	71	184	17	10	2.67
Lown, Chicago.....	60	93	73	42	62	9	2	2.71
DiTmar, New York.....	38	202	156	63	96	13	9	2.90
Walker, Baltimore.....	30	182	160	52	100	11	10	2.92
O'Dell, Baltimore.....	38	199	163	67	88	10	12	2.94
DeLock, Boston.....	28	134	120	62	55	11	6	2.96
Ford, New York.....	35	204	184	89	113	16	10	3.04
Wynn, Chicago.....	37	256	202	119	179	22	10	3.13
Daley, Kansas City.....	39	216	212	62	126	16	13	3.17
Pappas, Baltimore.....	33	209	175	75	120	15	9	3.27
Mossi, Detroit.....	34	228	210	49	125	17	9	3.36
Lary, Detroit.....	32	223	225	46	133	17	10	3.35
Pierce, Chicago.....	34	224	217	62	114	14	15	3.62
McLish, Cleveland.....	35	235	253	72	113	19	8	3.64
Donovan, Chicago.....	31	180	171	58	71	9	10	3.65
Garver, Kansas City.....	32	201	215	42	61	10	13	3.72
Brower, Boston.....	36	215	219	88	120	10	12	3.77
Brown, Baltimore.....	31	164	158	32	81	11	9	3.79
Latman, Chicago.....	37	156	136	72	97	8	5	3.81
Terry, K. C.-N. Y.....	33	175	186	61	89	5	11	3.86
Bunning, Detroit.....	40	250	220	75	201	17	13	3.89
Clevenger, Washington.....	50	117	114	61	71	8	6	3.92
Sullivan, Boston.....	30	178	172	67	107	9	11	3.94
Baumann, Boston.....	26	97	97	56	48	6	4	3.99
Bell, Cleveland.....	44	234	208	105	136	16	11	4.04
Loos, Baltimore.....	37	64	58	25	34	4	7	4.08
Ramos, Washington.....	37	234	233	62	95	13	19	4.15
Grant, Cleveland.....	38	165	140	81	85	10	7	4.15
Monbouquette, Boston.....	34	152	165	33	84	7	7	4.15
Grim, Kansas City.....	40	125	124	57	65	6	10	4.25
Fischer, Washington.....	34	187	211	44	62	9	11	4.28
Casale, Boston.....	31	180	162	89	93	13	8	4.30
Turley, New York.....	33	164	141	83	111	8	11	4.32
Larsen, New York.....	25	125	122	76	69	6	7	4.32
Kucks, N. Y.-K. C.....	42	168	184	61	89	8	12	4.34
Coleman, K. C.-Balt.....	32	85	88	36	67	2	10	4.34
Kemmerer, Washington.....	37	206	221	70	88	8	17	4.50
Maas, New York.....	38	138	149	63	66	14	8	4.50
Sturdivant, N. Y.-K. C.....	43	97	90	43	73	2	8	4.64
Foytack, Detroit.....	39	240	239	64	110	14	14	4.65
Score, Cleveland.....	30	161	123	61	115	14	7	4.70
Harshman, Balt.-Bost.-Cleve.....	35	138	133	61	73	7	10	4.76
Herbert, Kansas City.....	37	186	195	62	98	11	11	4.82
Griggs, Washington.....	37	98	103	52	41	2	8	5.23
Narieski, Detroit.....	42	104	105	59	72	4	12	5.80

National League

	g	ip	h	bb	so	w	l	era
Craig, Los Angeles.....	29	153	121	46	77	11	5	2.06
Rush, Milwaukee.....	31	101	102	22	63	5	6	2.41
Henry, Chicago.....	65	133	111	26	110	9	8	2.71
Face, Pittsburgh.....	57	93	90	26	67	18	1	2.71
Miller, San Francisco.....	59	168	164	57	94	8	7	2.84
S. Jones, San Francisco.....	50	271	232	109	207	21	15	2.86
Buhl, Milwaukee.....	31	198	181	74	105	15	9	2.86
Spahn, Milwaukee.....	40	292	282	70	143	21	15	2.96
Law, Pittsburgh.....	34	266	244	53	108	18	9	3.00
Conley, Philadelphia.....	25	180	159	42	102	12	7	3.00
Newcombe, Cincinnati.....	30	222	216	27	100	13	8	3.12
Antonelli, San Fran.....	40	282	247	76	154	19	10	3.13
Haddix, Pittsburgh.....	31	224	189	49	148	12	13	3.13
Sanford, St. Louis.....	36	222	198	73	131	15	12	3.16
Owens, Philadelphia.....	31	221	203	73	135	12	12	3.22
Jackson, St. Louis.....	40	266	271	64	145	14	13	3.30
Elston, Chicago.....	65	98	77	46	80	10	8	3.31
Drysdale, Los Angeles.....	44	271	237	93	242	17	43	3.45
Hillman, Chicago.....	39	191	178	43	88	8	11	3.53
Hobbie, Chicago.....	26	233	203	106	138	16	13	3.67
Blackburn, Pittsburgh.....	46	116	113	41	74	9	6	3.80
McDaniel, St. Louis.....	62	132	144	41	87	14	12	3.82
McDevitt, Los Angeles.....	39	145	157	51	106	10	8	3.97
Friend, Pittsburgh.....	35	235	260	52	103	8	19	4.02
McCormick, San Fran.....	47	226	213	86	153	12	16	4.02
Labine, Los Angeles.....	56	85	91	26	34	5	10	4.02
Koufax, Los Angeles.....	35	153	136	92	173	8	6	4.06
Cardwell, Philadelphia.....	25	153	134	65	106	9	10	4.06
Burdette, Milwaukee.....	41	290	312	38	105	21	15	4.07
Jay, Milwaukee.....	34	136	130	65	84	5	11	4.10
Williams, Los Angeles.....	35	125	102	86	83	5	5	4.10
Podres, Los Angeles.....	34	195	192	74	144	14	9	4.11
Drabowsky, Chicago.....	31	142	138	75	70	5	10	4.21
Anderson, Chicago.....	37	234	245	77	113	12	13	4.15
Willey, Milwaukee.....	26	117	126	31	51	6	9	4.15
Mizell, St. Louis.....	31	201	199	89	108	13	9	4.21
Nuxhall, Cincinnati.....	28	132	155	36	74	9	9	4.23
Purkey, Cincinnati.....	38	218	241	43	78	13	18	4.25
Kline, Pittsburgh.....	30	170	161	70	91	11	13	4.26
Roberts, Philadelphia.....	35	257	267	36	135	15	17	4.27
Braglio, St. Louis.....	35	181	174	89	135	7	12	4.67
Pena, Cincinnati.....	47	136	150	39	74	5	9	4.76
Lawrence, Cincinnati.....	43	128	144	45	63	7	12	4.78
Ceccarelli, Chicago.....	18	102	95	37	55	5	6	4.85
Hook, Cincinnati.....	17	79	79	39	37	5	5	5.13
O'Toole, Cincinnati.....	28	129	144	73	67	5	8	5.16
Daniels, Pittsburgh.....	33	101	115	39	67	7	9	5.35
Semproch, Philadelphia.....	30	112	120	59	63	3	10	5.38

ANGLING AND CASTING

Source: Paul N. Jones, Executive Secretary, National Association of Angling and Casting Clubs.

National Championships

All-around—Marion Garber, Toledo, Ohio

DISTANCE—COMBINED

	ft.
All distance—Marion Garber, Toledo, Ohio.....	3,184
Flies—Jon Tarantino, San Francisco.....	1,113
Baits—Sib Liotta, Cleveland.....	2,221

DISTANCE—SINGLE EVENT

	long	cast
Trout fly—Jon Tarantino, San Francisco.....	160	167
Salmon fly—Jon Tarantino, San Francisco.....	211	227
½-oz. bait—Marion Garber, Toledo, Ohio.....	357½	364
½-oz. bait—Sib Liotta, Cleveland.....	420½	436

ACCURACY—COMBINED

	pts.
All accuracy—William Peters, Toledo, Ohio.....	392
Flies—Dick Fujita, Cleveland; Tom Sibila, Cleveland; Steve Aleshi, Kansas City, Mo.; Baldi Darnay, Kansas City, Mo.; Marion Garber, Toledo, Ohio; Jim Randall, Hartford, Conn. (six-way tie).....	197
Baits—John Crewdson, Chicago.....	197

ACCURACY—SINGLE EVENT

	pts.
Dry fly—Baldi Darnay, Kansas City, Mo.....	99
Wet fly—Clem Forcade, St. Louis.....	100
½-oz. bait—Charles Sutphin, Indianapolis.....	100
½-oz. bait—Jim Kangas, Toledo, Ohio.....	99

CHESS

Source: American Chess Bulletin, New York

United States Champions

Men—Bobby Fischer, Brooklyn, N. Y.
 Women—Mrs. Gisela K. Gresser, New York, and Mrs. Sonja Graf-Stevenson, Los Angeles (tie)
 Men's open—Arthur B. Bisguier, New York
 Women's open—Mrs. Sonja Graf-Stevenson, Los Angeles
 Amateur—Russell Chauvenet, Silver Spring, Md.
 Junior—Robin Ault, Cranford, N. J.

Other Champions

World junior—Carlos Bielicki, Argentina
 British—H. Golombek, M. J. Haygarth and J. Penrose (tie)
 Scottish—Peter Coast
 Canadian open—Dr. Elrod Macskasy
 Spanish—Arthur Pomar
 Soviet—Tigran Petrosian

SOCCER

Source: Flannery News Bureau, New York

Major U. S. Winners

National Challenge Cup—McIlwaine Canvasbacks, San Pedro, Calif.
 National Amateur Cup—Kutis S. C., St. Louis
 National Junior Cup—New York Hungarians
 American League—Hakoah S. C., New York
 Lewis Cup—Ukrainian Nationals, Philadelphia
 National League—United Kingdom, New York

1959 WORLD SERIES

Los Angeles Dodgers (N. L.) defeated Chicago White Sox (A. L.), 4 games to 2

1st Game—at Chicago, Thu., Oct. 1

3d Game—At Los Angeles, Sun., Oct. 4

LOS ANGELES (N)

CHICAGO (A)

CHICAGO

LOS ANGELES

	ab	r	hr	bi
Gilliam, 3b...	4	0	1	0
Neal, 2b...	4	0	2	0
Moon, lf...	4	0	1	0
Snider, cf...	2	0	0	0
Demeter, cf...	1	0	0	0
Larker, rf...	4	0	1	0
Hodges, 1b...	4	0	2	0
Roseboro, c...	4	0	0	0
Wills, ss...	3	0	1	0
aFurillo...	1	0	0	0
Craig, p...	1	0	0	0
Churn, p...	0	0	0	0
Labine, p...	0	0	0	0
aEssegian...	1	0	0	0
Koufax, p...	0	0	0	0
bFairly...	1	0	0	0
Klippstein, p	0	0	0	0
Totals.....	34	0	8	0

aStruck out for Labine in 5th. bGrounded out for Koufax in 7th. cFlied out for Wills in 9th.

Los Angeles..... 0 0 0 0 0 0 0 0 0-0
Chicago..... 2 0 7 2 0 0 0 0 0 x-11

E—Snider 2, Neal. 2B—Fox, Smith 2, Wynn. HR—Kluszewski 2. SB—Neal. SF—Lollar. DP—Aparicio-Fox-Kluszewski. LOB—Los Angeles 8, Chicago 3. BB, off—Wynn 1 (Snider), Craig 1 (Fox). SO, by—Wynn 6 (Wills, Craig, Roseboro, Essegian, Gilliam, Larker), Staley 1 (Demeter), Craig 1 (Smith), Labine 1 (Esposito), Koufax 1 (Wynn), Klippstein 2 (Rivera, Staley). H, off—Wynn 5 in 7 innings (faced 1 batter in 8th), Staley 2 in 2, Craig 5 in 2 1/3, Churn 5 in 2/3 (faced 2 batters in 4th), Labine 0 in 1, Koufax 0 in 2, Klippstein 1 in 2. R&ER—Craig 6-5, Churn 6-2. WP—Wynn. LP—Craig.

Umpires—Summers (A), plate; Dascoli (N), 1b; Hurley (A), 2b; Secory (N), 3b; Rice (A), lf; Dixon (N), rf. Time—2:35. Paid attendance—48,013. Net receipts—\$325,757.09.

2d Game—At Chicago, Fri., Oct. 2

LOS ANGELES

CHICAGO

	ab	r	hr	bi
Gilliam, 3b...	4	1	1	0
Neal, 2b...	5	2	2	3
Moon, lf...	3	0	1	0
Snider, cf...	4	0	1	0
Demeter, cf...	0	0	0	0
Larker, rf...	3	0	0	0
Sherry, p...	1	0	0	0
Hodges, 1b...	4	0	0	0
Roseboro, c...	4	0	1	0
Wills, ss...	4	0	1	0
Podres, p...	2	0	1	0
aEssegian...	1	1	1	0
Fairly, rf...	1	0	0	0
Totals.....	36	4	9	4

aHit homer for Podres in 7th. bRan for Kluszewski in 8th. cStruck out for Phillips in 8th. dGrounded out for Lown in 9th.

Los Angeles..... 0 0 0 0 1 0 3 0 0-4
Chicago..... 2 0 0 0 0 0 0 0 1 0-3

E—Wills. 2B—Aparicio, Phillips, Smith. HR—Neal 2, Essegian. SB—Moon, Gilliam. LOB—Los Angeles 7, Chicago 8. BB, off—Shaw 1 (Gilliam), Lown 1 (Moon), Podres 3 (Landis, Fox, Smith). SO, by—Shaw 1 (Hodges), Lown 3 (Shaw, Landis, Lollar), Sherry 1 (Goodman). H, off—Shaw 8 in 6 2/3 innings, Lown 1 in 2 1/3, Podres 5 in 6, Sherry 3 in 3. R&ER—Shaw 4-4, Podres 2-2, Sherry 1-1. WP—Podres. LP—Shaw.

Umpires—Dascoli (N), plate; Hurley (A), 1b; Secory (N), 2b; Summers (A), 3b; Rice (A), lf; Dixon (N), rf. Time—2:21. Paid attendance—47,368. Net receipts—\$323,400.27.

	ab	r	hr	bi
Aparicio, ss...	4	0	2	0
Fox, 2b...	4	0	3	0
Landis, cf...	5	0	1	0
Kluszewski, 1b	3	1	1	0
Lollar, c...	4	0	2	0
Goodman, 3b	3	0	2	0
cEsposito, 3b	0	0	0	0
Smith, lf...	4	0	0	0
Rivera, rf...	3	0	0	0
Donovan, p...	3	0	1	0
Staley, p...	0	0	0	0
dCash...	1	0	0	0
Totals.....	34	1	12	0

Totals..... 34 1 12 0

aSingle for Demeter in 7th. bRan for Furillo in 7th. cRan for Goodman in 8th. dStruck out for Staley in 9th.

Chicago..... 0 0 0 0 0 0 0 1 0-1
Los Angeles..... 0 0 0 0 0 0 2 1 x-3

E—none. 2B—Neal. SB—Landis. S—Sherry. DP—Aparicio-Fox-Kluszewski, Roseboro-Neal, Gilliam-Neal-Hodges, Wills-Neal-Hodges. LOB—Chicago 11, Los Angeles 3. BB, off—Drysdale 4 (Fox, Kluszewski, Rivera, Aparicio), Donovan 2 (Larker, Hodges), SO, by—Drysdale 5 (Aparicio, Smith, Landis 2, Donovan), Sherry 3 (Cash, Aparicio, Landis), Donovan 5 (Larker, Wills, Drysdale 2, Hodges). H, off—Drysdale 11 in 7 innings (faced 2 batters in 8th), Sherry 1 in 2, Donovan 2 in 6 2/3, Staley 3 in 1 1/3. R&ER—Drysdale 1-1, Donovan 2-2, Staley 1-1. HP, by Sherry 1 (Goodman). WP—Drysdale. LP—Donovan.

Umpires—Hurley (A), plate; Secory (N), 1b; Summers (A), 2b; Dascoli (N), 3b; Dixon (N), lf; Rice (A), rf. Time—2:33. Paid attendance—92,294. Net receipts—\$594,071.76.

4th Game—At Los Angeles, Mon., Oct. 5

CHICAGO

LOS ANGELES

	ab	r	hr	bi
Landis, cf...	5	1	1	0
Aparicio, ss...	3	0	1	0
Fox, 2b...	5	1	3	0
Kluszewski, 1b	4	1	2	1
Lollar, c...	4	1	1	3
Goodman, 3b	4	0	0	0
Smith, lf...	3	2	0	1
Rivera, rf...	3	0	0	0
Wynn, p...	1	0	0	0
Lown, p...	0	0	0	0
aCash...	1	0	0	0
Pierce, p...	0	0	0	0
cTorgeson...	1	0	0	0
Staley, p...	0	0	0	0
Totals.....	34	4	10	4

aStruck out for Lown in 4th. bStruck out for Larker in 5th. cGrounded out for Pierce in 7th.

Chicago..... 0 0 0 0 0 0 0 4 0-4
Los Angeles..... 0 0 4 0 0 0 0 1 x-6

E—Landis, Aparicio. 2B—Fox. HR—Lollar, Hodges. SB—Aparicio, Wills. S—Roseboro, Craig. Aparicio. DP—Wills-Neal-Hodges, Neal-Wills-Hodges. LOB—Chicago 9, Los Angeles 6. BB, off—Craig 4 (Aparicio, Rivera, Kluszewski, Smith), Sherry 1 (Staley), Pierce 1 (Demeter). SO, by—Craig 7 (Goodman 3, Lollar, Cash, Landis, Fox), Wynn 2 (Larker, Craig), Pierce 2 (Moon, Furillo), Staley 2 (Fairly, Demeter). H, off—Craig 10 in 7 innings, Sherry 0 in 2, Wynn 8 in 2 2/3, Lown 0 in 1/3, Pierce 0 in 3, Staley 1 in 2. R&ER—Craig 4-4, Wynn 4-3, Staley 1-1. PB—Lollar. WP—Sherry. LP—Staley.

Umpires—Secory (N), plate; Summers (A), 1b; Dascoli (N), 2b; Hurley (A), 3b; Dixon (N), lf; Rice (A), rf. Time—2:30. Paid attendance—92,550. Net receipts—\$551,506.23.

SOFTBALL

World Champions

(Amateur Softball Association)

Men—Sealmasters, Aurora, Ill.

Women—Raybestos Brakettes, Stratford, Conn.

Men's slow pitch—Yorkshire, Newport, Ky.

Women's slow pitch—Pearl Laundry, Richmond, Va.

5th Game—At Los Angeles, Tue., Oct. 6

World Series Batting Records

CHICAGO

LOS ANGELES

LOS ANGELES

CHICAGO	ab	r	h	rbi	LOS ANGELES	ab	r	h	rbi
Aparicio, ss.	4	0	2	0	Gilliam, 3b.	5	0	4	0
Fox, 2b.	3	1	1	0	Neal, 2b.	5	0	1	0
Landis, cf.	4	0	1	0	Moon, rf, cf.	4	0	1	0
Lollar, c.	4	0	0	0	Larker, lf.	4	0	0	0
Klusz'ski, 1b	4	0	0	0	Hodges, 1b.	4	0	3	0
Smith, rf, lf.	4	0	0	0	Demeter, cf.	3	0	0	0
Phillips, 3b.	3	0	1	0	eFairly, rf.	0	0	0	0
McAnany, lf.	1	0	0	0	fRepulski, rf.	0	0	0	0
Rivera, rf.	0	0	0	0	Roseboro, c.	3	0	0	0
Shaw, p.	1	0	0	0	gFurillo, lf.	1	0	0	0
Pierce, p.	0	0	0	0	hPignatano, c.	0	0	0	0
Donovan, p.	0	0	0	0	Wills, ss.	2	0	0	0

Totals..... 28 1 5 0

aWalked for Wills in 7th. bRan for Essegian in 7th.
cHit into force play for Koufax in 7th. dRan for Snider in 7th. eAnnounced for Demeter in 8th. fWalked intentionally for Fairly in 8th. gPopped out for Roseboro in 8th. hGrounded out for Williams in 9th.

Chicago.....	0	0	1	0	0	0	0	0	1
Los Angeles.....	0	0	0	0	0	0	0	0	0

E—none. 3B—Hodges. SB—Gilliam. S—Shaw 2. DP—Neal-Hodges. LOB—Chicago 5, Los Angeles 11. BB, off—Koufax 1 (McAnany), Williams 2 (Rivera, Fox), Shaw 1 (Essegian), Pierce 1 (Repulski). SO, by—Koufax 6 (Aparicio, Landis 2, Smith 2, Shaw), Williams 1 (Lollar), Shaw 1 (Koufax). H, off—Koufax 5 in 7 innings, Williams 0 in 2, Shaw, 9 in 7 1/3, Pierce 0 in 0 (faced 1 batter in 8th), Donovan 0 in 1 2/3. R&ER—Koufax 1-1. Wild pitch—Shaw. WP—Shaw. LP—Koufax.

Umpires—Summers (A), plate; Dascoli (N), 1b; Hurley (A), 2b; Secory (N), 3b; Dixon (N), lf; Rice (A), rf. Time—2:28. Paid attendance—92,706. Net receipts—\$552,774.77.

6th Game—At Chicago, Oct. 8

LOS ANGELES

CHICAGO

LOS ANGELES	ab	r	h	rbi	CHICAGO	ab	r	h	rbi
Gilliam, 3b.	4	1	0	0	Aparicio, ss.	5	0	1	0
Neal, 2b.	5	1	3	2	Fox, 2b.	4	0	1	0
Moon, lf.	4	2	1	2	Landis, cf.	3	1	1	0
Snider, cf, rf	3	1	1	2	Lollar, c.	3	1	0	0
eEssegian.....	1	1	1	1	Klusz'ski, 1b.	4	1	2	3
Fairly, rf.....	0	0	0	0	Smith, lf.	2	0	0	0
Hodges, 1b.	5	0	1	0	Phillips, 3b, rf.	4	0	1	0
Larker, rf.	1	0	1	0	McAnany, rf.	1	0	0	0
aDemeter, cf.	3	1	1	0	bGoodman, 3b.	3	0	0	0
Roseboro, c.	4	0	0	0	Wynn, p.	1	0	0	0
Wills, ss.	4	1	1	1	Donovan, p.	0	0	0	0
Podres, p.	2	1	1	1	Lown, p.	0	0	0	0
Sherry, p.	2	0	2	0	cTorgeson.....	0	0	0	0
Totals.....	38	9	13	9	Staley, p.	0	0	0	0

aRan for Larker in 4th. bStruck out for McAnany in 4th. cWalked for Lown in 4th. dGrounded out for Staley in 7th. eHit homer for Snider in 9th. fFlied out for Moore in 9th.

Los Angeles.....	0	0	2	6	0	0	0	1	—9
Chicago.....	0	0	0	3	0	0	0	0	—3

E—Aparicio. 2B—Podres, Neal, Fox, Kluszewski. HR—Snider, Moon, Kluszewski, Essegian. S—Roseboro. DP—Podres-Neal-Hodges. LOB—Los Angeles 7, Chicago 7. BB, off—Wynn 3 (Snider, Larker, Moon), Donovan 1 (Gilliam), Podres 3 (Smith 2, Lollar), Sherry 1 (Torgeson). SO, by—Wynn 2 (Gilliam, Neal), Pierce 1 (Moon), Moore 1 (Demeter), Podres 1 (Wynn), Sherry 1 (Goodman). Hits, off—Wynn 5 in 3 1/2 innings, Donovan 2 in 0 (faced 3 batters in 4th), Lown 1 in 2/3, Staley 2 in 3, Pierce 2 in 1, Moore 1 in 1, Podres 2 in 3 1/3, Sherry 4 in 5 2/3. HP, by—Podres 1 (Landis). R&ER—Wynn 5-5, Donovan 3-3, Moore 1-1, Podres 3-3. WP—Sherry. LP—Wynn.

Umpires—Dascoli (N), plate; Hurley (A), 1b; Secory (N), 2b; Summers (A), 3b; Rice (A), lf; Dixon (N), rf. Time—2:33. Paid attendance—47,653. Net receipts—\$324,463.32.

LOS ANGELES	g	ab	r	h	2b	3b	hr	rbi	bb	so	avg
Gilliam, 3b.	6	25	2	6	0	0	0	0	2	2	.240
Neal, 2b.	6	27	4	10	2	0	2	6	0	1	.370
Moon, lf, rf, cf.	6	23	3	6	0	0	1	2	2	2	.261
*Snider, cf, rf.	4	10	1	2	0	0	1	2	2	0	.200
†Demeter, cf.	6	12	2	3	0	0	0	0	1	3	.250
Larker, rf, lf.	6	16	2	3	0	0	0	0	2	3	.188
Hodges, 1b.	6	23	2	9	0	1	1	2	1	2	.391
Roseboro, c.	6	21	0	2	0	0	0	1	0	2	.095
Pignatano, c.	1	0	0	0	0	0	0	0	0	0	.000
Wills, ss.	6	20	2	5	0	0	0	1	0	3	.250
*Furillo, rf.	4	4	0	1	0	0	0	2	0	1	.250
Craig, p.	2	3	0	0	0	0	0	0	0	2	.000
Churn, p.	1	0	0	0	0	0	0	0	0	0	.000
Labine, p.	1	0	0	0	0	0	0	0	0	1	.000
*Essegian.	4	3	2	2	0	0	2	2	1	1	.667
†Zimmer, ss.	1	1	0	0	0	0	0	0	0	0	.000
Koufax, p.	2	2	0	0	0	0	0	0	0	1	.000
*Fairly, rf, cf.	6	3	0	0	0	0	0	0	0	1	.000
*Repulski, rf.	1	0	0	0	0	0	0	0	1	0	.000
Klippstein, p.	1	0	0	0	0	0	0	0	0	0	.000
†Podres, p.	3	4	1	2	1	0	1	0	0	0	.500
*Sherry, p.	6	4	0	2	0	0	0	0	0	1	.500
Drysdale, p.	1	2	0	0	0	0	0	0	0	2	.000
Williams, p.	1	0	0	0	0	0	0	0	0	0	.000
Totals.....	6	203	21	53	3	1	7	19	12	27	.261

CHICAGO

CHICAGO	g	ab	r	h	2b	3b	hr	rbi	bb	so	avg
Aparicio, ss.	6	26	1	8	1	0	0	0	2	3	.308
Fox, 2b.	6	24	4	9	3	0	0	0	4	1	.375
Landis, cf.	6	24	6	7	0	0	0	1	1	7	.292
Kluszewski, 1b.	6	23	5	9	1	0	3	10	2	0	.391
*Torgeson, 1b.	3	1	1	0	0	0	0	0	1	0	.000
Lollar, c.	6	22	3	5	0	0	1	5	1	3	.227
Smith, lf, rf.	6	20	1	5	3	0	0	1	4	4	.250
Phillips, 3b, rf.	5	10	0	3	1	0	0	0	0	0	.300
*Goodman, 3b.	3	13	1	3	0	0	0	1	0	5	.231
†Eposito, 3b.	2	2	0	0	0	0	0	0	0	1	.000
McAnany, rf, lf.	3	5	0	0	0	0	0	0	1	0	.000
Rivera, rf.	3	5	1	0	0	0	0	0	3	1	.000
Wynn, p.	3	5	0	1	1	0	0	1	0	2	.200
Staley, p.	4	1	0	0	0	0	0	0	1	1	.000
*Romano.	1	1	0	0	0	0	0	0	0	0	.000
Shaw, p.	2	4	0	1	0	0	0	0	0	2	.250
Lown, p.	3	0	0	0	0	0	0	0	0	0	.000
*Cash.	4	4	0	0	0	0	0	0	0	2	.000
Donovan, p.	3	3	0	1	0	0	0	0	0	1	.333
Pierce, p.	3	0	0	0	0	0	0	0	0	0	.000
Moore, p.	1	0	0	0	0	0	0	0	0	0	.000
Totals.....	6	199	23	52	10	0	4	19	20	33	.261

* Pinch hitter. † Pinch runner.

POLO

Source: Lillian M. Lauria, U. S. Polo Association

National Champions

Open—Circle F, Dallas (Delmar Carroll, Ray Harrington, Jr., William A. Mayer, Russel Firestone, Jr.
20-goal—Circle F, Dallas (Russell Firestone, Jr., William A. Mayer, Ray Harrington, Jr., Lester Armour)
Inter-circuit—Menlo Circus, Calif. (William H. Gilmore, David S. Moore, Robert Skene, W. Mackall Jason)
12-goal—Menlo Circus, Calif. (Frank A. McNeilly, David S. Moore, Robert Skene, W. Mackall Jason)
Paul Butler handicaps—Oak Brook, Ill. (Victor Graber, William Linfoot, Cecil Smith, Jack Murphy)

INDOOR

12-goal—Milwaukee (Paul Smithson, Jr., William E. Stevens, Donald G. McCarroll)
Sherman Memorial—Huntington Turtles, N. Y. (Joseph Schwartz, Arthur Nichols, Frank Rice)
Intercollegiate—Cornell (Bennet M. Baldwin, Peter D. Baldwin, Stanley R. Woolaway)

CANOEING

International Challenge Cup—England
President's Cup Regatta—Inwood C. C., New York
National decked sailing—Adolph Morse, Yonkers, N. Y.

MINOR LEAGUE BASEBALL

JUNIOR WORLD SERIES

Havana (International League) defeated Minneapolis (American Association), 4 games to 3

PAN-AMERICAN ASSOCIATION
PLAYOFFS

Austin (Texas League) defeated Mexico City Reds (Mexican League), 4 games to 1

CLASS AAA

American Association

FINAL STANDING OF THE CLUBS

EASTERN DIV.

WESTERN DIV.

	W	L	Pct		W	L	Pct
Louisville...	97	65	.599	Omaha...	83	78	.516
*Minneapolis	95	67	.586	Fort Worth...	81	81	.500
Indianapolis	86	76	.531	Denver...	76	86	.469
St. Paul...	81	81	.500	Dallas...	75	87	.463
Charleston...	77	84	.478	Houston...	58	104	.358

* Won playoffs.

THE LEADERS

BA—Luis Marquez, Dallas...	.345
HR—Ron Jackson, Indianapolis...	30
RBI—Ron Jackson, Indianapolis...	
Pitching (wins)—George Maranda, Louisville...	18
Pitching (ERA)—Marion Fricano, Dallas...	2.02

International League

FINAL STANDING OF THE CLUBS

	W	L	Pct		W	L	Pct
Buffalo...	89	64	.582	Rochester...	74	80	.481
Columbus...	84	70	.545	Montreal...	72	82	.468
*Havana...	80	73	.523	Miami...	71	83	.461
Richmond...	76	78	.494	Toronto...	69	85	.448

* Won playoffs.

THE LEADERS

BA—Frank Herrera, Buffalo...	.327
HR—Frank Herrera, Buffalo...	37
RBI—Frank Herrera, Buffalo...	129
Pitching (wins)—Bob Keegan, Rochester...	18
Pitching (ERA)—Luis Arroyo, Havana...	1.23

Pacific Coast League

FINAL STANDING OF THE CLUBS

	W	L	Pct		W	L	Pct
Salt Lake City	85	69	.552	Spokane...	77	77	.500
Vancouver...	82	69	.543	Portland...	75	77	.493
San Diego...	78	75	.510	Seattle...	74	80	.481
Sacramento...	78	76	.506	Phoenix...	64	90	.416

THE LEADERS

BA—Tom Davis, Spokane...	.345
HR—Willie McCovey, Phoenix...	29
RBI—Willie McCovey, Phoenix, and Steve Bisko, Spokane...	92
Pitching (wins)—Dick Hall, Salt Lake City...	18
Pitching (ERA)—Dick Hall, Salt Lake City...	1.87

CLASS AA

League and champion

Playoff winner

Mexican—Poza Rica...	Mexico City Reds
Southern Assn.—Birmingham (1st half), Mobile (2d half)...	Mobile
Texas—Victoria...	Austin

CLASS A

Eastern—Springfield...	Springfield
South Atlantic—Knoxville...	Gastonia

CLASS B

Carolina—Raleigh...	Wilson
Northwest—Salem (1st half), Yakima (2d half)...	Yakima
Three-I—Green Bay (1st half), Des Moines (2d half)...	Green Bay

CLASS C

California—Bakersfield (1st half), Modesto (2d half)...	Modesto
Northern—Winnipeg...	Winnipeg
Pioneer—Boise...	Billings

CLASS D

Alabama—Florida—Montgomery...	Selma
Appalachian—Morristown...	No playoffs
Florida State—Tampa (1st half), St. Petersburg (2d half)...	St. Petersburg
Midwest—Waterloo (both halves)...	No playoffs
Nebraska State—McCook...	No playoffs
New York—Penn—Wellsville...	Wellsville
Sophomore—Carlsbad (Northern Div.), Alpine (Southern Div.)...	Alpine

Other Baseball Champions

National Baseball Congress—Houston (Tex.) Fed-Marts
 National Collegiate A. A.—Oklahoma State
 N. A. I. A.—Southern University
 National Junior College—Paris, Texas
 American Legion—Thomas A. Edison Post, Detroit
 National Amateur Federation, Junior—Detroit, Cincinnati (tie)
 All-American Amateur Assn.—Washington, D. C.
 All-American Amateur Assn., Limited Division—Baltimore
 American Amateur Congress—Dearborn, Mich.
 Little League—Hamtramck, Mich.
 Hearst Sandlot Classic—United States All-Stars
 Babe Ruth World Series—Tulsa, Okla.
 Colt League—Pensacola, Fla.
 V. F. W. Teeners—Uniontown, Pa.
 Connie Mack World Series—Oakland, Calif.
 P-O-N-Y League—Long Beach, Calif.
 P-O-N-Y Grads League—Lufkin, Tex.

CYCLING

Source: Otto Elsele, Racing Editor, *American Bicyclist*.

World Championships

(At Amsterdam and Zandvort, Holland)

PROFESSIONAL

Road—Andre Darrigade, France
 Sprint—Antonio Maspes, Italy
 Pursuit—Roger Riviere, France
 Motor-paced—Guillermo Timoner, Spain

AMATEUR

Road—Gustav Schur, East Germany
 Sprint—Valentina Gasparella, Italy
 Pursuit—Rudi Altig, West Germany
 Motor-paced—R. E. Van Hsuwelingen, Holland

United States Amateur

(At Kenosha, Wis.)

Open—James Rossi, Chicago
 Mile—Dave Sharp, Pacific Palisades, Calif.
 2-mile—James Rossi, Chicago
 5-mile—Jack Hartman, Los Gatos, Calif.
 10-mile—James Rossi, Chicago
 Women's open—Joanne Speckin, Detroit

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We have endeavored to prepare the INDEX for easy use by professional researchers and the average Mr. and Mrs. Public. This goal presents many difficulties and we modestly hope we have succeeded. Where we have failed we would appreciate your help. If you cannot find anything quickly and you think it's our fault, kindly send suggestions and criticisms to:

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